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Partisan differences in perceived levels of democracy across presidential administrations

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Democracy in the United States is in decline. The current work examines to what degree U.S. Americans perceive this decline in the U.S., and how partisanship may shape those perceptions over time. Using cross-sectional archival data spanning three U.S. presidential administrations (Study 1), we find that perceived levels of democracy by U.S. Americans on both sides of the political spectrum were not attuned to objective democracy indices but instead followed a partisan gap where election winners perceived higher levels of democracy than election losers. Using a longitudinal quasi-experiment tracking the 2020 presidential election (Study 2), we find that the effect of partisanship on perceived levels of democracy kicked in right after the announcement of the election winner but was the strongest after the official inauguration. Moreover, Trump supporters showed heterogeneous responses to the Capitol attack, which highlights the possibility of bipartisan willingness to defend democracy after salient attacks on democratic principles. We discuss the implications of the effect of partisanship on perceptions of democracy.

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Partisan differences in perceived levels of democracy across presidential administrations

Democracy in the United States has been declining over the past decade, evidenced by an erosion of core democratic practices (Levitsky and Ziblatt, 2019; Statement of Concern, 2021). In 2017, the U.S. went from being categorized as a “full democracy” to a “flawed democracy” (Democracy Index 2017, 2017). In 2020, the U.S.’s democracy score dropped by 12% compared to 10 years prior according to Freedom House, rendering it worse off than most other Western democracies (*From Crisis to Reform*, 2021). Similarly, Varieties of Democracy (V-Dem) recorded a drop in the country’s Liberal Democracy Index during the Trump presidency (Democracy Reports 2020, 2020). In 2021, the U.S. scored a historical low since the creation of the Democracy Index in 2006 by the Economist Intelligence Unit (Fig. 1).

Recent years have also been marked by salient threats to U.S. democracy (Landry et al., 2021). For example, after Biden was announced as the winner of the 2020 presidential election, Trump refused to accept the election outcome and made unfounded accusations of mass electoral fraud. Partially instigated by Trump’s false claims, over 2000 rioters stormed the Capitol on January 6th, 2021, in an attempt to violently overturn the election results. The attack caused at least seven deaths, hundreds of people injured, and billions of dollars in damages (U.S. Government Accountability Office, 2023).

With the current studies, we aim to understand whether lay people in the U.S. perceive the objective decline and threats to democracy. Drawing from literature in political science and social psychology, we theorize that partisanship shapes perceptions of democracy to a greater degree than the objective markers of decline in U.S. democracy. But importantly, in the face of salient threats to democracy (the Capitol attack), partisanship’s impact on perceptions of democracy may vary.

The winner-loser gap and polarizing partisanship

Past work shows that a “winner-loser gap” tends to arise after elections. This gap refers to differences between those whose

preferred party and/or candidate won and those whose preferred party and/or candidate lost in their satisfaction with democracy (Anderson and LoTempio, 2002; Blais and Gélinau, 2007). Citizens who vote for a winning party in an election tend to be more satisfied with the country’s democratic system, as the party is more likely to advance policies and pass laws in line with their preference or to their benefit (Anderson and Tverdova, 2001; Curini et al., 2012). From a social identity perspective, there is also a psychological boost in being a member of a winning group (Tajfel, 1974). On the other hand, citizens who vote for a losing party tend to be less satisfied with the democratic system and have less trust in it. But what does the winner-loser gap look like in a declining democracy? Does it still arise, or are winners and losers sensitive to the downward trend of democracy based on objective markers? To investigate this question, we ground our theorizing in sectarianism and affective polarization.

The last decade of American politics has been particularly marked by sectarianism, where political party affiliation has become a prevalent basis for othering and animosity (Finkel et al., 2020). People from opposite sides of the political aisle have an increasingly difficult time withholding partisan biases, talking to each other about disagreement, or even having cordial social interactions (Chen and Rohla, 2018; Iyengar and Westwood, 2015; McConnell et al., 2018). This lack of trust and dialogue with out-party partisans prevents common ground and cross-party solutions from being formed. Partisanship and negative affect toward the out-party have risen sharply and become a dominating factor in shaping individual attitudes and decision-making, especially since the Trump presidency (Lieberman et al., 2019; Whitt et al., 2021). While 35–47% of Democrats and Republicans reported seeing the opposing party as immoral in 2016, the numbers increased to an unprecedented 63–72% in 2022 (Nadeem, 2022). This political out-party hate, highest in the U.S. than other OECD countries (Boxell et al., 2022), has become a stronger predictor of voting behavior than political in-party love (Abramowitz and Webster, 2016; Iyengar and Westwood, 2015). Even with the same facts, partisans tend to make different attributions of credit and blame that favor their preferred party (Bisgaard, 2019). Opinions around seemingly nonpolitical issues,

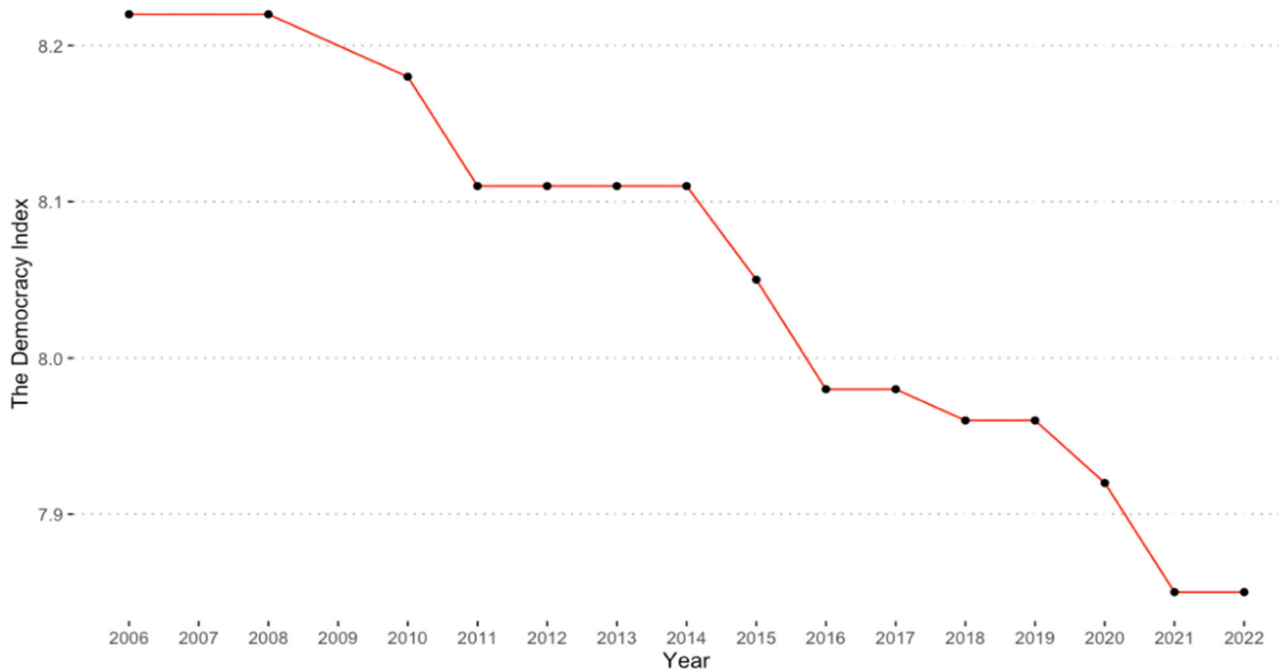


Fig. 1 U.S. Democracy Index score from 2006–2022.

such as climate change and the COVID-19 pandemic, have been widely politicized, creating great hardships in effectively mobilizing corrective and protective campaigns (Gollwitzer et al., 2020).

One of many harmful consequences of the rising political polarization is the threat it poses to democracy. Despite individuals professing their allegiance to democratic ideals (Carey et al., 2019), such as the rejection of authoritarianism and the acceptance of the separation of powers, the implementation of these ideals has become politicized. For example, voters of the Democratic and Republican parties are only willing to endorse checks and balances on power when their own party is not in charge and rarely support punishing candidates from their political ingroup for violating democratic principles (Graham and Svulik, 2020). Similarly, partisans oppose certain democratic norms (e.g., constitutional protections and political tolerance) when their party is in power but support them when the opposing party is in power (Kingzette et al., 2021). Therefore, it appears that U.S. Americans may be willing to prioritize political ideology and partisan loyalty over democratic principles.

Polarization also reduces the accuracy of people's perceptions of political outgroups. Partisans' meta-perceptions of rival partisans tend to be largely inaccurate: Democrats and Republicans' perceptions of the other party's support for violence and willingness to engage in violence ranged from 245 to 442% higher than actual levels (Mernyk et al., 2022). They also believe that the opposing party values democratic characteristics less than their own party, and this misperception leads to endorsement of political violence and anti-democratic behaviors that advantage their political ingroup (Pasek et al., 2022).

Building on beforementioned research, we theorize that partisanship will shape perceptions of democracy even in the face of an objective decline in U.S. democracy. In other words, Democrats' and Republicans' average perceptions of democracy will follow the winner-loser gap (i.e., depending on the party holding office) and will not be attuned to the objective decline in democracy. We test these predictions in Study 1 with a nationally representative sample, where we (1) assess perceived levels of democracy as a function of political affiliation to confirm the presence of a winner-loser gap, and (2) benchmark perceived levels of democracy against objective democracy indices ("Democracy Index," 2023; *Freedom in the World*, n.d.; *V-Dem*, n.d.). This will allow us to examine whether partisans' perceived levels of democracy deviate from expert ratings of democratic trends in the U.S.

Aftermath of capitol attack: shifting perception of democracy

The current work also investigates how the winner-loser gap changes throughout the course of an election. Utilizing data from the 2020 presidential election, we examine the nuanced dynamics and shifts of perceptions of democracy in the face of key political events, from the announcement of the winner to the inauguration that signals the formal start of the new winner's administration. Moreover, the Capitol attack on January 6th, 2021, allowed us to examine how a violent disruption of democratic principles instigated by the 'losers' of an election influences the winner-loser gap. Below we theorize how perceptions of democracy levels might shift during the 2020 presidential election cycle.

As discussed earlier, the winner-loser gap occurs primarily due to two sets of factors. The first arises from the psychological satisfaction associated with winning, and the second arises from ideological proximity to the new administration and policy considerations (Ezrow and Xezonakis, 2011; Singh et al., 2012). Although the first factor can come online as soon as a party or candidate is announced as the winner, the second factor is more

likely to come online after the inauguration. The 2020 presidential election was marked by false claims of election fraud made by Trump and Trump supporters (Pennycook and Rand, 2021). Such claims could increase uncertainty surrounding the winning status of each party. Therefore, the winner-loser gap is likely to shrink after the announcement of Biden as the winner in the 2020 presidential election, but not fully reverse until after Biden is inaugurated.

How will a violent attack on the democratic system such as the Capitol attack impact the winner-loser gap? Very little work has directly assessed whether a winner-loser gap persists in reaction to a negative external shock to the democratic system, which has harmful implications for a country's political system in the long run. Literature in political science suggests that losers of an election are more likely than winners to retain their democratic commitments, particularly in response to infringements by the winning party's leader. For example, in the face of an authoritarian candidate's victory in Brazil, losers reported less tolerance for anti-democratic maneuvers by the president from the opposing party (Cohen et al., 2023). Similarly, studies in twelve different African countries found that losers are more willing to defend their institutions against manipulation by elected officials, whereas winners are more submissive with unconditional support for their party's leaders (Moehler, 2009). Taken together, these findings suggest that as their values are largely met by having their preferred candidate win the election, Biden supporters will benefit from their winning status and be psychologically protected against perceiving any event as particularly endangering or harmful, whereas Trump supporters will perceive a higher need to uphold democratic principles. Nonetheless, this body of work largely examines infringements by leaders from the winning party. What happens to the winner-loser gap with a violent attempt to overturn election results by the losing party?

We develop our theorizing respectively for election winners and losers, i.e., Biden and Trump supporters, as there are counterbalancing forces driving each group's perceptions. According to social identity theory, people are motivated to protect their ingroup and derogate other outgroups to maintain a positive view of the self (Tajfel et al., 1979; Tajfel and Turner, 2004). As the Capitol attack was carried out by Trump supporters to challenge Biden's victory, Biden supporters might perceive decreased levels of democracy after the Capitol attack. On the other hand, following from the work on infringements by the winning party, election winners' winning status and feelings of inclusion of their party in the system can paint a rosy view of political matters for them, which can lead to increased perceptions of democracy regardless of an attack. Moreover, Congress confirmed Biden's victory right after the attack and thereby affirmed democratic principles. Due to these counterbalancing factors, Biden supporters' perceptions of democracy may not change significantly after the attack.

For election losers, past research suggests heterogeneous responses to the attack on the democratic system led by their in-party members. First, prior studies found that some members of losing political parties may endorse violent means to restore a democratic system they support (e.g., Pasek et al., 2022). Indeed, some Trump supporters perceived the Capitol attack as a legitimate protest and a justified procedure for them to clarify perceived election fraud (Zulli et al., 2023). As such, these Trump supporters will not feel that democratic principles are violated after the Capitol attack, and instead be disappointed in the democratic system when Congress confirms Biden's victory after the attack (Arceneaux and Truex, 2022). For other Trump supporters, violent attacks on democratic institutions can pose a limit to their party loyalty. After the attack, many Trump supporters in the U.S. became more concerned about U.S. democracy

(Reimann, 2022; Rose and Baker, 2022), calling it a direct attack on democracy that should never be forgotten (Suter, 2024). The attack also led to reduced expressions of identification with the Republican party and Trump on social media, as well as some registrants’ defection from the Republican party (Eady et al., 2022; Frye, 2023; Loving and Smith, 2022). These Trump supporters might believe that the Capitol attack violates democratic values despite their losing status, perceive a strong need for democratic principles to be strengthened after the attack, and hence view Congress’s confirmation of Biden’s victory as an attestation that the attack failed in challenging the U.S. democratic system. Taken together, it is likely that the winner-loser gap will be different based on Trump supporters’ heterogeneous views of the attack. We examine these predictions in Study 2, where we conducted a longitudinal survey during the 2020 presidential election, starting one day before the election, and including one day after the Capitol attack. Materials, anonymized data, and analysis codes for both studies are available at https://osf.io/vcthj/?view_only=1c216f234d454ef29c5fe5a5e74622bf. Data from Study 1 is publicly available through the World Values Survey website.

Study 1. In Study 1, we examined two questions, (1) how partisanship shapes perceived levels of democracy across three presidential administrations in the U.S., and (2) to what degree partisans are attuned to the decline in U.S. democracy according to objective indices, i.e., whether citizens report a general decline in the democracy level of the U.S. over time. We hypothesize a winner-loser gap to persist in each administration, and that partisans’ perceptions of democracy will not decrease over time.

Dataset. The World Value Surveys (WVS) has been collecting data through face-to-face, nationally representative surveys in over 90 countries since 1981 across seven waves (WVS Database, n.d.). These multiple waves allow us to tap into natural government and power transitions between parties. Specifically, we analyzed three waves of data collected in the United States in the WVS, 2006 (Wave 5; George W. Bush administration – Republican Party), 2011 (Wave 6; Barack Obama administration – Democratic Party), and 2017 (Wave 7; Donald Trump administration – Republican Party), leaving 4144 participants in our sample (1999 self-identified women, 2145 self-identified men;

2933 White/Caucasian [sic] Americans, 408 Black/African Americans, 533 Hispanics, 154 other race, 116 mixed race; $M_{age} = 47.63$, $SD_{age} = 17.00$; Haerpfer et al. 2022a, 2022b). The sample consisted of 2337 self-identified Democrats and 1807 self-identified Republicans. By using data collection wave as a proxy for administration, we were able to test our predictions that perceived democracy levels will differ as a function of whether or not one’s preferred party is in power, rather than objective markers of democracy.

For political affiliation, we used the survey question asking participants’ candidate preference, “If there were a national election tomorrow, for which party on this list would you vote?” For perceived democracy levels, we used the question, “How democratically is this country being governed today?” on a 1–10 Likert scale (1 = Not at all democratic, 10 = completely democratic; $M = 6.25$, $SD = 2.22$).

Question 1: How does partisanship shape perceptions of democracy across three presidential administrations in the U.S.?

Partisan perceptions when preferred party is or is not in power: Seeing as WVS collects data from different people in each wave, the data are not nested. Therefore, we conducted *t* tests and factorial ANOVAs to examine changes in perceived democracy as a function of the interaction between political affiliation and governing political party (Fig. 2). First, a Welch’s *t*-test comparing data from Bush (Wave 5; $M = 6.50$, $SD = 2.34$) and Obama administrations (Wave 6; $M = 6.59$, $SD = 2.18$) revealed that overall, respondents perceived no change in democracy levels across the two waves, $t(1800.2) = -0.94$, $p = 0.35$, $d = 0.04$. Overall, compared to the Obama administration (Wave 6), there were lower perceived levels of democracy during the Trump administration (Wave 7; $M = 6.18$, $SD = 2.26$), $t(2795.8) = 5.09$, $p < 0.001$, $d = -0.18$.

We went on to examine the role of partisanship across waves. Because both Waves 5 and 7 were Republican administrations, we ran a linear regression including two dummy variables for Wave 5 and Wave 7 using Wave 6 as the omitted baseline, and their interaction with partisanship. Two significant interactions emerged on perceived levels of democracy (partisanship × Wave 5 vs. 6: $b = 2.59$, $SE = 0.19$, $p < 0.001$, 95% CI [2.22, 2.97]; partisanship × Wave 7 vs. 6: $b = 2.04$, $SE = 0.16$, $p < 0.001$, 95% CI [1.73, 2.35]). As hypothesized, Democrats perceived higher levels of democracy when their party came into power, i.e., from

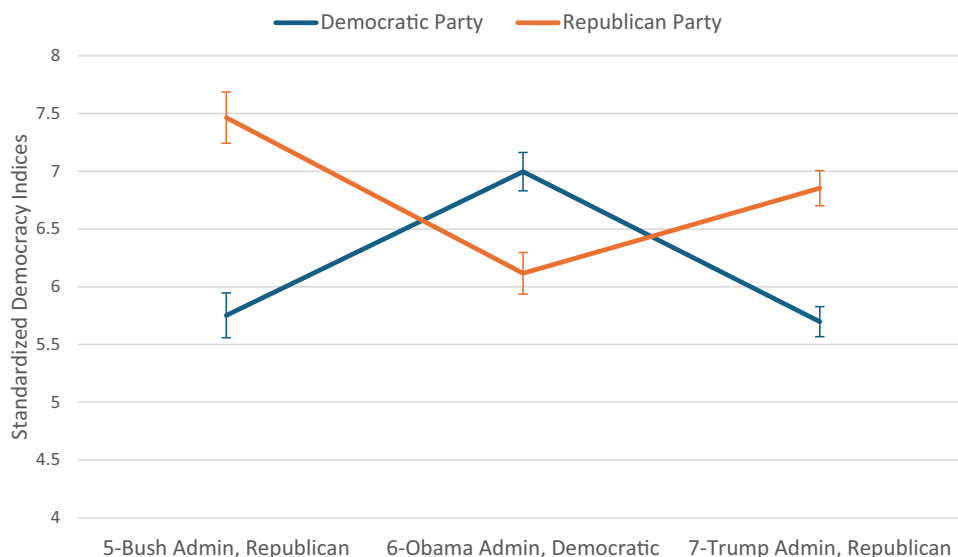


Fig. 2 Perceived Democracy as A Function of Administration And Political Affiliation.

Wave 5 (Bush administration; $M = 5.75, SD = 2.36$) to Wave 6 (Obama administration; $M = 7.00, SD = 2.05$), $b = 1.24, SE = 0.13, p < 0.001, 95\% CI [0.88, 1.61]$. Conversely, Democrats perceived lower levels of democracy from Wave 6 to Wave 7 (from Obama to Trump administration; $M = 5.70, SD = 2.34$), $b = -1.30, SE = 0.11, p < 0.001, 95\% CI [-1.60, -1.00]$.

Also consistent with our expectations, Republicans showed the opposite pattern across waves. They perceived lower levels of democracy from Wave 5 (Bush administration; $M = 7.47, SD = 1.94$) to Wave 6 (Obama administration, i.e., when their party was removed from power; $M = 6.12, SD = 2.22$), $b = -1.35, SE = 0.14, p < 0.001, 95\% CI [-1.75, -0.94]$. Conversely, Republicans perceived higher levels of democracy from Wave 6 to Wave 7 ($M = 6.85, SD = 1.96$), i.e., when their party came into power, $b = 0.74, SE = 0.12, p < 0.001, 95\% CI [0.40, 1.07]$. All results remain consistent after adding demographic controls including social class, income, age, race, gender, and level of education.

Partisan gaps in perceived levels of democracy: Next, we compared Democrats and Republicans' perceived levels of democracy across administrations. A partisan gap emerged in every wave. In Wave 5 (Bush administration-Republican), Democrats ($M = 5.75, SD = 2.36$) perceived lower levels of democracy than Republicans ($M = 7.47, SD = 1.94$), $b = -1.71, SE = 0.15, p < 0.001, 95\% CI [-2.13, -1.29]$. In Wave 6 (Obama administration-Democrat), Democrats ($M = 7.00, SD = 2.05$) perceived higher levels of democracy than Republicans ($M = 6.12, SD = 2.22$), $b = 0.88, SE = 0.12, p < 0.001, 95\% CI [0.53, 1.23]$. In Wave 7 (Trump administration-Republican), Democrats ($M = 5.70, SD = 2.34$) again perceived lower levels of democracy than Republicans ($M = 6.85, SD = 1.96$), $b = -1.16, SE = 0.10, p < 0.001, 95\% CI [-1.44, -0.87]$.

Question 2: To what degree are partisans attuned to the objective decline in U.S. democracy?: To examine this question, we compared partisans' perceptions of democracy to three well-established democracy indices. The Democracy Index is an index on a scale of 0–10 compiled by the Economist Intelligence Unit of the Economist Group based on each country's electoral processes and pluralism, civil liberties, government functioning, political participation, and political culture ("Democracy Index,"

2023). Freedom House constructs its democracy scores on a scale of -1–100 for each country by analyzing similar metrics including the country's electoral process, political pluralism and participation, government functioning, freedom of expression, the rule of law, and individual rights (*Freedom in the World*, n.d.). We also used the Liberal Democracy Index calculated by the Varieties of Democracy (V-Dem), which is on a scale of 0–1 and takes into account civil liberties, rule of law, effective checks and balances, as well as electoral process. From Bush to Obama administrations, V-Dem and Freedom House indicated a slight increase in the democracy scores of the United States (V-Dem: +0.04; Freedom House: +1), whereas the Democracy Index indicated a decrease (-0.11). Despite these mixed findings, both Republicans and Democrats perceived significant changes in democracy levels per their political affiliation: Republicans perceived a significant drop, $b = -1.35, SE = 0.14, p < 0.001, 95\% CI [-1.75, -0.94]$, whereas Democrats perceived a significant increase across the two waves, $b = 1.24, SE = 0.13, p < 0.001, 95\% CI [0.88, 1.61]$. From Obama to Trump administrations, all three democracy indices indicated a decline in U.S.'s democracy scores (Democracy Index: -0.13; V-Dem: -0.1; Freedom House: -5). In face of the decline, Democrats perceived lower levels of democracy, $b = -1.30, SE = 0.11, p < 0.001, 95\% CI [-1.60, -1.00]$. However, Republicans perceived higher levels of democracy, $b = 0.74, SE = 0.12, p < 0.001, 95\% CI [0.40, 1.07]$, which was in stark contrast to the objective democracy indices (Fig. 3).

Study 2. In Study 2, we utilized the 2020 U.S. presidential election as a natural experiment and collected data from the day before the 2020 presidential election until the midterm elections in 2022, including just one day after the United States Capitol attack. We built on the cross-sectional results of Study 1 in two ways. First, we examined how partisanship drives perceptions of democracy longitudinally during the course of an election cycle. Second, we examined how the Capitol attack, a violent and blatant threat to the U.S. democratic system, impacted partisans' perceptions of democracy. As theorized above, Trump supporters' views of how democratic the Capitol attack was may be heterogenous, so we tested whether the winner-loser gap shifted based on different perceptions of the attack.

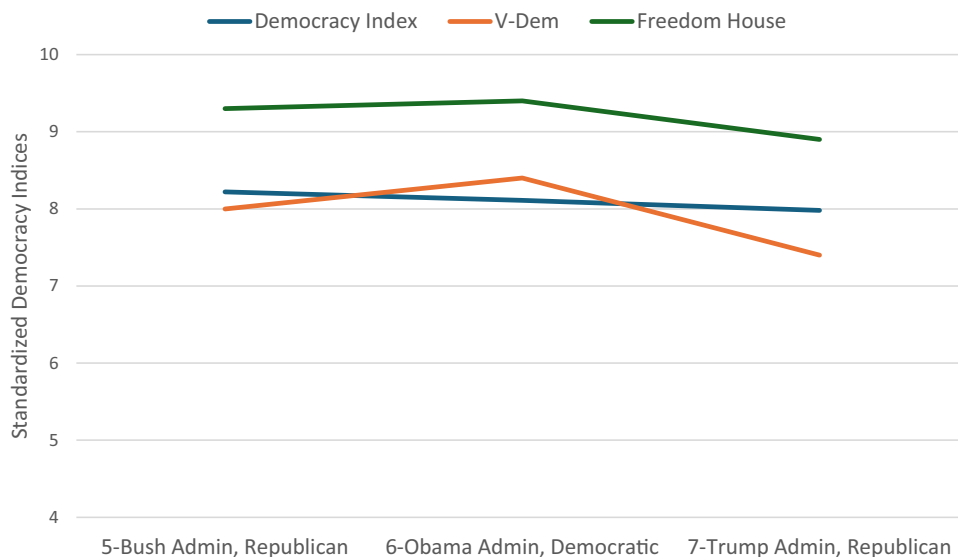


Fig. 3 Plot of Standardized Democracy Indices as A Function of Wave.

Method. Participants were 687 adults recruited via CloudResearch, an online research platform where interested individuals at least 18 years old can sign up to participate in research studies, for the initial survey. All participants who completed the first survey were invited to participate in the following surveys. Three-hundred and sixty-seven participants completed the four surveys distributed during the 2020 presidential election cycle, and 262 participants completed the fifth survey a year and a half later (see Supplementary Materials for the panel attrition analysis). The survey timeline was as follows: Wave 1 was on November 2, 2020, one day before Election Day; Wave 2 was on November 7, 2020, one day after the official announcement of the 2020 presidential election results; Wave 3 was on January 7, 2021, one day after the Capitol attack in the morning of which Congress confirmed Biden’s victory; Wave 4 was on January 21, 2021, one day after Joe Biden’s presidential inauguration; Wave 5 was on May 30, 2022, approximately one and a half year after the Election Day. We assessed political affiliation by asking participants who they were going to vote for in the presidential election (449 Biden supporters, 238 Trump supporters). Similar to Study 1, perceived levels of democracy were assessed by asking participants how democratically they think the country is being governed today on a 1–7 Likert scale. We continue to use this item from WVS because it assesses perceptions of democracy broadly, and has been used in work looking at the links between the perceived democracy well-being (Mungar and Cramer, 2021), pro-environmental attitudes (Running, 2015), and objective democracy (Yeung, 2023), in line with the media discourse around the Capitol attack and democracy in the broad sense of the word (e.g., Weiner et al., 2024). It also aligns with the methodology in prior work on satisfaction with democracy (Blais and Gélinau, 2007) and work examining other macro-level perceptions, such as perceived inequality (Gimpelson and Treisman, 2018). We believe that perceptions of democracy broadly, rather than perceptions of specific components of democracy, best allow us to capture the psychological processes at play as a function of partisanship and election events.

To capture perceptions of the Capitol attack, in Wave 3, we also assessed how much participants perceived Congress’s confirmation of Biden’s victory after the Capitol attack to be beneficial or harmful for democracy on a 7-point scale (1 = Very bad for democracy, 4 = Neither bad nor good for democracy, 7 =

Very good for democracy). In line with our theorizing, most Biden supporters (other than one person) had a rating higher than 4 on the scale ($M = 6.68, SD = 0.73$), whereas Trump supporters’ ratings varied ($M = 3.98, SD = 2.07$). We interpret this measure for Trump supporters to represent how much they perceive the Capitol attack as endangering the democratic system; if Trump supporters perceive the Capitol attack as threatening democratic values and principles, they should perceive Congress’s confirmation of Biden’s victory as safeguarding the democratic system and thus beneficial for democracy despite their personal political affiliation. If Trump supporters perceive the attack as legitimate and rightfully overturning election fraud, they should act in line with their personal political affiliation and perceive Congress’s confirmation of Biden’s victory as being bad for democracy. Following our theorizing laid out in the introduction, we explored how the winner-loser gap changed based on Trump supporters’ ratings of this item.

Analytical approach. We examined how the partisan gap fluctuated over time and compared Biden and Trump supporters’ perceptions of democracy to each other across waves. Because participants responded to the same questions at multiple time points, our data structure was nested within individuals, allowing us to retain data points from participants who did not fill out all five surveys. We conducted multilevel regressions predicting perceptions of democracy from interactions between candidate preference and wave (using Wave 1 as the omitted baseline), including random intercepts of participants to account for within-individual statistical dependence (Fig. 4). We report coefficients from the multilevel regression when we discuss changes in the winner-loser gaps across time, i.e., change-in-changes. For changes in perceived democracy levels within Biden and Trump supporters across waves, and differences between Biden and Trump supporters within each wave, we report post-hoc Tukey pairwise comparisons based on the multilevel regression. All results remain consistent after adding demographic controls including age, race, gender, income, and level of education.

Partisan perceptions of democracy when their party gained or lost power. We first analyzed Democrats’ and Republicans’ perceptions of democracy respectively as a function of whether their

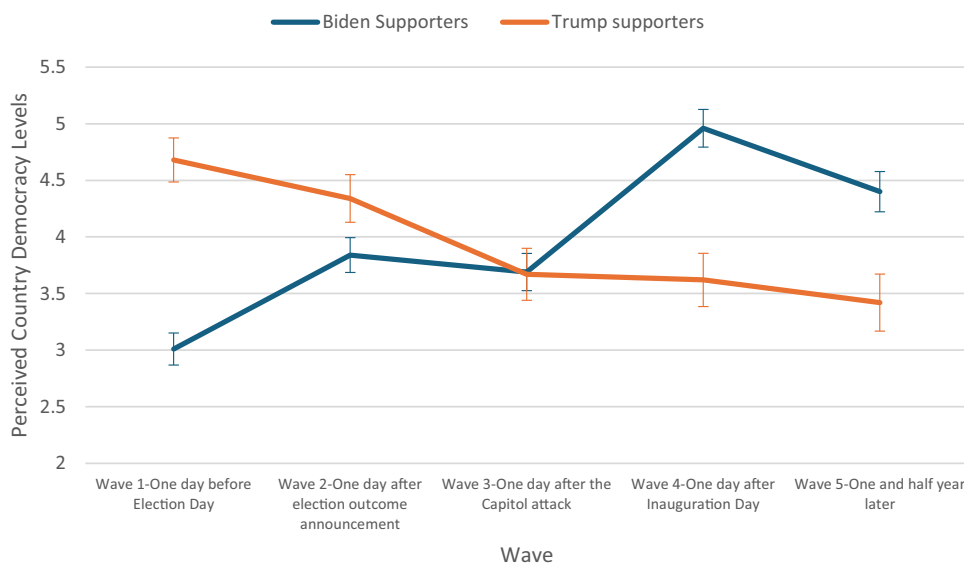


Fig. 4 Perceived Levels of Democracy by Candidate Preference and Wave.

Winner-Loser gap with Trump supporters who view Congress confirmation of Biden's victory as bad for democracy

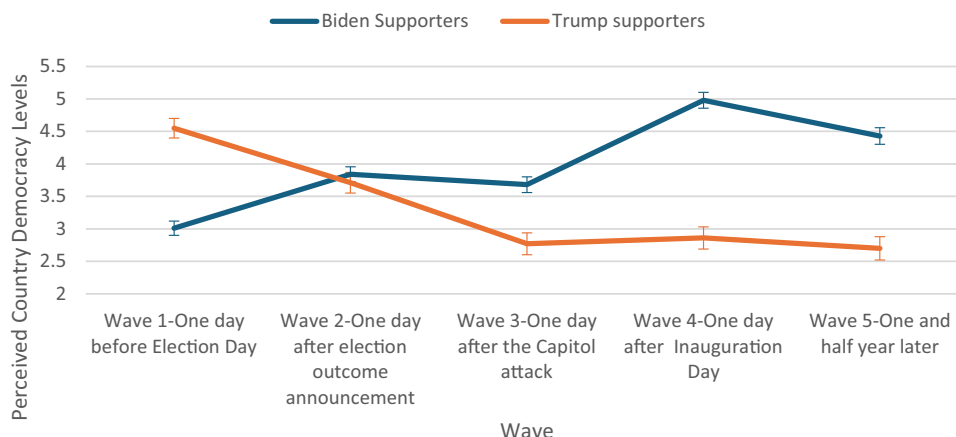


Fig. 5 Perceived Levels of Democracy by Candidate Preference (with only Trump supporters who view Congress confirmation of Biden's victory as bad for democracy) and Wave.

preferred party was in power. Two waves in our data collection indicated anticipated and official power transition: Wave 2 (election outcome announcement) and Wave 4 (the Inauguration Day). We compared Wave 2 to Wave 1, and Wave 4 to Wave 2, to examine how partisan perceptions changed when their party gained or lost power.

Pairwise comparisons with Tukey corrections revealed that, in line with the theorizing that winning is associated with higher and losing lower levels of perceived democracy, in Wave 2 after Biden's initial victory, Biden supporters perceived higher democracy levels ($M = 3.84, SD = 1.61$) than Wave 1 (pre-election; $M = 3.01, SD = 1.41$), $b = 0.83, SE = 0.086, p < 0.001, 95\% CI [0.56, 1.10]$, whereas Trump supporters' perceived levels marginally decreased ($M = 4.34, SD = 1.57$) compared to Wave 1 ($M = 4.68, SD = 1.34$), $b = -0.35, SE = 0.12, p = 0.083, 95\% CI [-0.72, 0.02]$. In Wave 4, one day after Biden's official inauguration, Biden supporters' perceived levels of democracy further increased ($M = 4.96, SD = 1.33$) compared to Wave 2, $b = 1.14, SE = 0.096, p < 0.001, 95\% CI [0.84, 1.45]$, whereas Trump supporters' perceived levels of democracy significantly dropped ($M = 3.62, SD = 1.74$) compared to Wave 2, $b = -0.68, SE = 0.14, p < 0.001, 95\% CI [-1.10, -0.25]$.

The aftermath of the Capitol attack: Trump supporters' heterogeneous responses. We went on to analyze the impact of the Capitol attack on bipartisan perceptions of democracy. Pairwise comparisons revealed that in Wave 3, one day after the Capitol attack, Trump and Biden supporters' perceived democracy levels were not significantly different, $b = -0.028, SE = 0.14, p = 0.99, 95\% CI [-0.48, 0.42]$. For both groups, perceptions of perceived democracy were also below the midpoint of the scale (Trump supporters, $M = 3.67, SD = 1.67, t(159) = -2.51, p = 0.013$; Biden supporters, $M = 3.69, SD = 1.55, t(312) = -3.54, p < 0.001$).

To further break down this convergence and explore whether Trump supporters' heterogeneous responses to the Capitol attack impact their perceptions of democracy, we examined the winner-loser gap in Wave 3 separately for Trump supporters who perceived Congress confirming Biden's victory as good for democracy (above midpoint of the scale) and bad for democracy (below midpoint of the scale). We conducted two new multilevel

regressions with split samples. The first regression included all Biden supporters (all of whom but one perceived Congress's confirmation of Biden's victory as good for democracy) and the subset of Trump supporters who thought Congress's confirmation of Biden's victory was bad for democracy (see Fig. 5). Post-hoc pairwise comparisons showed that Biden supporters perceived significantly higher levels of democracy than this subset of Trump supporters after the Capitol attack (Wave 3), $b = 0.91, SE = 0.22, p = 0.001, 95\% CI [0.23, 1.59]$. Moreover, this subset of Trump supporters' perceptions of democracy decreased significantly from the previous wave (Wave 2), $b = -0.94, SE = 0.24, p = 0.003, 95\% CI [-3.97, -0.003]$. These results suggest that this subset of Trump supporters responded negatively to their losing status and possibly the fact that the attack did not overturn election results.

The second regression included all Biden supporters and the subset of Trump supporters who thought Congress's confirmation of Biden's victory was good for democracy (see Fig. 6). Post-hoc pairwise comparisons showed that in contrast to the other subset of Trump supporters, Biden supporters perceived significantly lower levels of democracy than this subset of Trump supporters who perceived Biden's confirmation as being good for democracy after the Capitol attack (Wave 3), $b = -0.77, SE = 0.19, p = 0.003, 95\% CI [-1.38, -0.16]$. This pattern is in the opposite direction of what their losing status would predict. As compared to the previous wave (Wave 2), this group of Trump supporters' perceived democracy levels did not decline as would be expected of those whose preferred candidate lost, $b = -0.11, SE = 0.21, p = 0.99, 95\% CI [-0.77, -0.54]$. These results are in line with our theorizing that Trump supporters who viewed Congress's confirmation of Biden's victory as good for democracy responded positively to the attack being unsuccessful and not disrupting the electoral outcome.

The partisan gap in perceived democracy levels reversed only after the Inauguration (official power transition). Finally, we examined differences between Biden and Trump supporters' perceived levels of democracy in Wave 2 (election outcome announcement; anticipated power transition) and Wave 4 (Inauguration Day; official power transition), and how this partisan gap changed as compared to Wave 1 (pre-election). Here, we report results from

Winner-Loser gap with Trump supporters who view Congress confirmation of Biden's victory as good for democracy

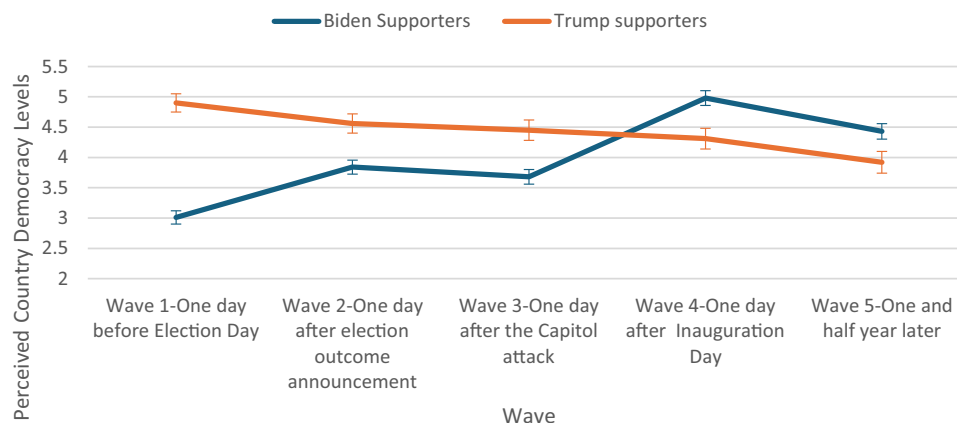


Fig. 6 Perceived Levels of Democracy by Candidate Preference (with only Trump supporters who view Congress confirmation of Biden's victory as good for democracy) and Wave.

the multilevel regression, which revealed that the partisan gap in perceived democracy levels decreased in Wave 2 (election outcome announcement) compared to Wave 1 (pre-election), $b = -1.18$, $SE = 0.15$, $p < 0.001$, 95% CI $[-1.47, -0.90]$. In Wave 1, Biden supporters perceived lower levels of democracy than Trump supporters, $b = -1.67$, $SE = 0.12$, $p < 0.001$, 95% CI $[-2.05, -1.29]$. This gap shrank in Wave 2, $b = -0.49$, $SE = 0.13$, $p = 0.008$, 95% CI $[-0.90, -0.07]$. The partisan gap further shrank in Wave 4 (the Inauguration Day) compared to Wave 1 (pre-election), $b = -3.00$, $SE = 0.16$, $p < 0.001$, 95% CI $[-3.31, -2.69]$. In Wave 4 (the Inauguration Day), the partisan gap reversed where Biden supporters for the first time viewed the country as more democratic than did Trump supporters, $b = 1.33$, $SE = 0.14$, $p < 0.001$, 95% CI $[0.87, 1.79]$. In Wave 5 (one and half year later), the partisan gap remained stable, and Biden supporters continued to perceive higher levels of democracy than Trump supporters, $b = 0.94$, $SE = 0.15$, $p < 0.001$, 95% CI $[0.45, 1.43]$.

Discussion

The present research examines the influence of partisanship on perceived levels of democracy across presidential administrations, in the face of an objective decline in, and blatant attack on, U.S. democracy. Studies 1 and 2 provide robust evidence that U.S. Americans' perceived levels of democracy are shaped by whether or not their preferred party is in office, rather than by objective shifts in democracy. In Study 1, we observed that Republicans perceived more democracy when a Republican president was in office compared to a Democratic president, while the reverse was true for Democrats. These partisan perceptions persisted despite the objective decline in democracy during the Trump administration as indicated by various objective democracy indices, transcending the specific characteristics of individual presidential administrations.

In addition, the current work demonstrates how the partisan gap in perceived levels of democracy changes, in real time, during a tumultuous election cycle. With the longitudinal design in Study 2, we found that the partisan gap, where the previous election's winners (Trump supporters) perceived higher levels of democracy than the previous election's losers (Biden supporters),

started to shrink immediately after the election results were announced. But the partisan gap did not fully reverse until after the inauguration, when the current election's winners started perceiving higher levels of democracy than the current election's losers, suggesting that the psychological boosts associated with winning do not fully kick in until after the official government transition.

We also show that biased partisan perceptions do have boundary conditions. We found that the Capitol attack created divided perceptions among partisans who identify with the losing party. Some Trump supporters perceived Congress's confirmation of Biden's victory after the attack as being bad for democracy. Their perceived democracy levels decreased sharply after the attack, suggesting that the confirmation of their losing status, and possibly a failed attempt to overturn election results, made them perceive less democracy. On the other hand, some Trump supporters perceived Congress's confirmation of Biden's victory as being good for democracy, which was opposite to the response their losing status would predict. These Trump supporters perceived higher levels of democracy than even Biden supporters after the attack, suggesting that they saw the confirmation of Biden's victory despite the attack as an affirmation of democratic principles.

Together, these results contribute to the literature on partisanship and perceptions of democracy in several important ways. First, we highlight that partisanship shapes perceptions of democracy more than objective indices do. In an era of political polarization, partisans are not perceiving the overall declining state of democracy over time (Flinders, 2022; Grumbach, 2022; Whitt et al., 2021). Complementing other research that investigates the negative effects of partisanship on reducing endorsement of democratic norms (Finkel et al., 2020; Graham and Svulik, 2020; Pasek et al., 2022), we provide evidence for how partisanship overshadows objective markers in shaping perceptions of democracy. This mechanism may, at least partly, explain why there is yet to be a bipartisan response to or collective will to protect the dwindling democracy.

In addition, we contribute to the winner-loser gap literature by showing that there may be heterogeneous responses within partisans that have previously not received enough attention. In the face of a violent disruption to democratic norms (i.e., the Capitol

attack), we unveil meaningful heterogeneity in the responses among Trump supporters. Past research provides competing predictions regarding how election losers might respond to the attack. On the one hand, according to the social identity perspective, election losers would support events that increase their likelihood of winning, and indeed some Trump supporters were shown to believe the attack was a legitimate move to combat election fraud (Gramlich, 2022; Zulli et al., 2023). On the other hand, election losers tend to have heightened sensitivity to disruptions of the democratic system by the winning party (Anderson et al., 2005; Moehler, 2009), and violent attacks on democratic institutions may pose limits on party loyalty and inhibit partisanship's influence on perceptions of democracy (Eady et al., 2022; Loving and Smith, 2022). We integrate and reconcile these lines of research by showing that in the wake of a violent attempt to overturn election results and hinder the confirmation of the winning outgroup, a subset of election losers supports the confirmation and views it as being good for democracy. They prioritize democratic principles over their own losing status and in turn, perceive higher levels of democracy than election winners. This has important implications for identifying that at least partial collective bipartisan action to defend democracy can be possible during democratic crises. In other words, bipartisan support for democratic norms may be reached when partisans prioritize democratic principles above and beyond their winning or losing status.

This work is not without its limitations. First, we rely on a single-item index to gauge partisans' perceptions of democracy. Democracy, by scholarly definition, is a complex construct consisting of multiple components including civil liberties, electoral justice, political system, etc. (Lindberg et al., 2014; Schmitter and Karl, 1991). In using a broad question, i.e., "How much democracy do you perceive there is?" we were able to capture the gestalt impression of the general state of democracy, which can impact and guide emotions and behaviors. But at the same time, this measure does not allow for a more granular analysis of different criteria people may be basing their perceptions of democracy on, i.e., whether they are thinking of fair elections, the government, or other specific processes. While it is valuable to understand people's perceptions of democracy in a broad sense, future work should investigate how partisanship influences perceptions of specific components of democracy differently, and whether partisans are more sensitive to declines in certain democratic functions than others.

Second, while focusing on perceptions of democracy levels, we did not explicitly test the perceived need to strengthen democratic principles or willingness to protect the democratic system. We used partisans' perceptions of key political events (Congress confirmation of Biden's victory after the Capitol attack) as a proxy for their political attitudes and willingness to uphold democratic principles. We encourage future research to more directly explore how political affiliation influences people's willingness to take (peaceful) action or actual behaviors to protect a democratic system that is under threat.

In sum, as democracy in the U.S. continues to dwindle, the current work sheds light on the importance of establishing attuned perceptions of democratic erosion. Together, these findings suggest that recognizing the influence of partisanship on perceptions of democracy is a crucial step in advancing collective will to restore and protect democracy.

Data availability

Materials, anonymized data, and analysis codes are available at https://osf.io/vcthj/?view_only=1c216f234d454ef29c5fe5a5e74622bf.

Data from Study 1 is publicly available on the World Values Survey website.

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Author contributions

The authors confirm contribution to the paper as follows: Gloria Danqiao Cheng—study conception, study design, data collection, analysis and interpretation of results, manuscript write-up; Serena Does—study conception, study design, interpretation of results, manuscript write-up; Margaret Shih—study conception, manuscript write-up.

Competing interests

The authors declare no competing interests.

Ethical approval

Two studies were reported in the paper. Study 1 analyzed publicly available de-identified archival data collected prior to the study by the World Values Survey Association, a non-commercial non-governmental international social research organization (<https://www.worldvaluessurvey.org/wvs.jsp>). Therefore, Study 1 did not directly involve human participants. Study 2 involved human participants and therefore required ethical approval. It was approved by the UCLA Institutional Review Board (IRB #20-001581).

Informed consent

Study 1 did not directly involve human participants and therefore no informed consent was obtained by the authors. Study 2 involved human participants, and all participants provided informed consent in Study 2.

Additional information

Supplementary information The online version contains supplementary material available at <https://doi.org/10.1057/s41599-024-03451-1>.

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