

# Collective Narcissism: Americans Exaggerate the Role of Their Home State in Appraising U.S. History



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## Abstract

Collective narcissism—a phenomenon in which individuals show excessively high regard for their own group—is ubiquitous in studies of small groups. We examined how Americans from the 50 U.S. states ( $N = 2,898$ ) remembered U.S. history by asking them, “In terms of percentage, what do you think was your home state’s contribution to the history of the United States?” The mean state estimates ranged from 9% (Iowa) to 41% (Virginia), with the total contribution for all states equaling 907%, indicating strong collective narcissism. In comparison, ratings provided by nonresidents for states were much lower (but still high). Surprisingly, asking people questions about U.S. history before they made their judgment did not lower estimates. We argue that this ethnocentric bias is due to ego protection, selective memory retrieval processes involving the availability heuristic, and poor statistical reasoning. This study shows that biases that influence individual remembering also influence collective remembering.

## Keywords

collective memory, availability bias, egocentrism, narcissism, judgment, open data, open materials, and preregistered

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Americans likely share collective memories about how their home state has influenced the history of the country. If asked how their state helped shape U.S. history, someone from Michigan might think of the auto industry, someone from Massachusetts about the Boston Tea Party, and someone from Delaware about his or her state being the first to ratify the Constitution. Scholars who study collective memories (Halbwachs, 1992; Hirst & Manier, 2008; Wertsch, 2002; Wertsch & Roediger, 2008) have argued that collective remembering is often characterized by egocentrism and narcissism—communities exaggerate their own achievements by highlighting certain themes and stories while downplaying or ignoring others (Baumeister & Hastings, 1997; Stone, Coman, Brown, Koppel, & Hirst, 2012). This phenomenon, labeled *collective narcissism* (e.g., de Zavala, Cichocka, Eidelson, & Jayawickreme, 2009), has been mostly studied in small groups. These considerations prompted the key question of this project: Is it possible to measure the narcissism that Americans show when asked to

estimate the contribution that their home state has made to U.S. history? We assessed group narcissism by measuring how much Americans overclaimed responsibility for the role of their home state in U.S. history (M. Ross & Sicoly, 1979).

Recently, cognitive and social psychologists have begun quantitatively studying collective memory and have demonstrated that the principles of individual remembering may also guide collective remembering (Rajaram & Pereira-Pasarin, 2010; Roediger & DeSoto, 2016; Scherman, Salgado, Shao, & Berntsen, 2017; R. J. Taylor, Burton-Wood, & Garry, 2017; Zaromb, Butler, Agarwal, & Roediger, 2014). For example, the forgetting rate of presidents over time follows the same power

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function that characterizes the forgetting rate of an individual's memories (Roediger & DeSoto, 2014).

In this study, we asked whether biases that influence individual memory and judgment will also influence judgments about groups. Egocentrism—failing to see the world from someone else's perspective—has been well documented in individuals (e.g., Gilovich, Medvec, & Savitsky, 2000; Kelley & Jacoby, 1996; L. Ross, Greene, & House, 1977). For example, when independently asked to estimate the percentage of the housework they are directly responsible for, husband and wife pairs provide percentage estimates that total more than 100% (M. Ross & Sicoly, 1979). Schroeder, Caruso, and Epley (2016) recently demonstrated that such overclaiming increases as the size of a group increases. Rather than deriving from an inflated sense of self-importance, this bias likely occurs because of the availability heuristic (Tversky & Kahneman, 1973)—people simply have access to more information (and find it easier to access that information) about their own contributions than those of others (e.g., M. Ross & Sicoly, 1979). Overclaiming of responsibility may also occur because people generally perform poorly on intuitive statistical-reasoning tasks (e.g., Landy, Guay, & Marghetis, in press).

In our study, we asked Americans from the 50 U.S. states to estimate how much their home state has contributed to U.S. history. Although it is impossible to objectively answer how much a state has contributed to U.S. history, we can learn much from how Americans answer that question. We can measure a narcissistic bias in two ways. First, we can compare the total average estimated contributions of all states with 100% and see if—and by how much—the total exceeds 100%; logically, the average response across all states should be 2%. Second, we can compare ratings made by the residents of a state with ratings of their state made by nonresidents. Do Americans brag about their states? In our experience, yes. As a recent example, Californian Elizabeth Ashford (a state official) was quoted as saying, “For Californians and California there’s always this concept of a Golden State, a model of what a state can be and achieve” (Arango, 2018). Such “state exceptionalism” can be seen in other states, too, as our results show.

We preregistered our prediction that Americans would show a large narcissistic bias for remembering the contributions of their home states (<https://osf.io/m3w2g/>). We further predicted that the original 13 colonies, California, and Texas would show a larger narcissistic bias than other states. Finally, we also tested two methods aimed at reducing this narcissistic bias: (a) having half of our sample take a quiz designed to remind them of the scope of U.S. history before estimating the contribution of their home state and (b) having subjects rate their home state while simultaneously

rating other states, with the stipulation that the total percentage equal 100%.

## Method

### Subjects

We recruited 2,898 subjects (1,222 males, 1,665 females, 11 other) through Amazon Mechanical Turk (Buhrmester, Kwang, & Gosling, 2011), with between 50 and 68 people representing each state.<sup>1</sup> The age of our sample ranged from 18 to 88 years ( $M = 36$ ,  $SD = 11.80$ ), and self-reported education data indicated that 2,125 subjects had achieved a college-level education or higher, 726 had a high school diploma, 15 did not finish high school, and 32 selected “other.” Subjects received \$0.60 for completing the study, which lasted 15 min.

Subjects were recruited through 50 surveys posted on Amazon Mechanical Turk, each of which recruited subjects from a different state. We aimed to recruit 65 people from each state, with the goal of having usable data from 50 people per state. The initial sample consisted of 3,469 subjects, but we excluded some subjects from data analysis for the following reasons (which we noted in our preregistration): (a) not following instructions for reporting events on a U.S. history quiz ( $n = 238$ ), (b) answering fewer than 5 questions correctly on the 15-question history quiz ( $n = 132$ ), and for self-reports indicating that they (c) had not spent at least 5 years in their home state ( $n = 93$ ), (d) did not speak English fluently ( $n = 27$ ), or (e) had consulted outside sources on the history quiz ( $n = 57$ ). We also omitted subjects whose response to the critical question was missing ( $n = 5$ ) or who likely took the survey more than once ( $n = 19$ , as determined by repeated Mechanical Turk IDs). After eliminating subjects who did not meet our criteria, we recruited more subjects until we had a minimum of 50 subjects from each state, giving us a final sample of 2,898. A split-half analysis (detailed in the Supplemental Material available online) shows that both the resident ratings,  $r = .81$ , 95% confidence interval (CI) = [.68, .89], and the nonresident ratings,  $r = .96$ , 95% CI = [.94, .98], were reliable.

### Materials

Our survey was modeled after previous work examining national narcissism (Zaromb et al., in press) and was administered using Qualtrics (Qualtrics, Provo, UT). The critical question read as follows (with the name of the state subjects grew up in replacing “Home State”):

You said that you grew up in [Home State]. In terms of percentage, what do you think was

[Home State]'s contribution to the history of the United States? In other words, how responsible was [Home State] for the historical developments in the United States? Keep in mind that there are 50 states and that the total contribution for all states has to equal 100%.

The last sentence of the instructions was intended to clarify that we wanted people to estimate the unique contributions of their state. In the rest of the survey, subjects listed the 10 most important events in U.S. history and took a 15-question multiple-choice quiz about U.S. history (see Table S6 in the Supplemental Material) that spanned from 1770 to the present. Subjects also answered questions about contributions of other states besides their home state, as described below.

## Procedure

Data were collected in January and February 2017. Each subject answered basic demographic questions—including reporting the state they grew up in and how many years they had lived there—before being randomly assigned to take the history quiz before (the prime condition,  $n = 1,474$ ) or after (the no-prime condition,  $n = 1,424$ ) answering the critical question. Subjects in the no-prime condition were first asked the critical question (described above) and responded using a slider from 0% to 100% that was initially set to 0%. Following that, subjects recalled the 10 most important events in U.S. history and answered the 15 questions about U.S. history. Subjects in the prime condition generated events and took the history quiz before answering the critical question.

Next, subjects rated the contribution of 10 randomly selected states by answering the same critical question but with other states as the target (e.g., “How much did Missouri contribute to U.S. history?”). Their home state was prevented from appearing in this section of the survey. Then subjects used a pull-down menu to identify the three states that they thought had contributed the most to U.S. history (they could select their home state) and estimated the contribution for those states. Next, subjects identified which state they thought had contributed the least to U.S. history and which state currently has the most sway over the country.

Finally, subjects completed a variation of the critical question. They were reminded that the contribution of all states should total 100% and were asked to provide a percentage for their own state, the three most important states that they had previously identified, and a category representing all other states. Subjects entered a number into a text box next to each item. Critically,

the total percentage had to add to 100 before subjects could proceed. Following that response, subjects were told that one of the experimental hypotheses was that people would overestimate the contribution of their home state to U.S. history and were asked to predict which state they thought would show the largest narcissistic bias. At the end of the survey, subjects then listed the states that they had lived in for over 5 years, were asked whether they had consulted outside resources during the survey, and indicated how difficult they found the survey.

## Results

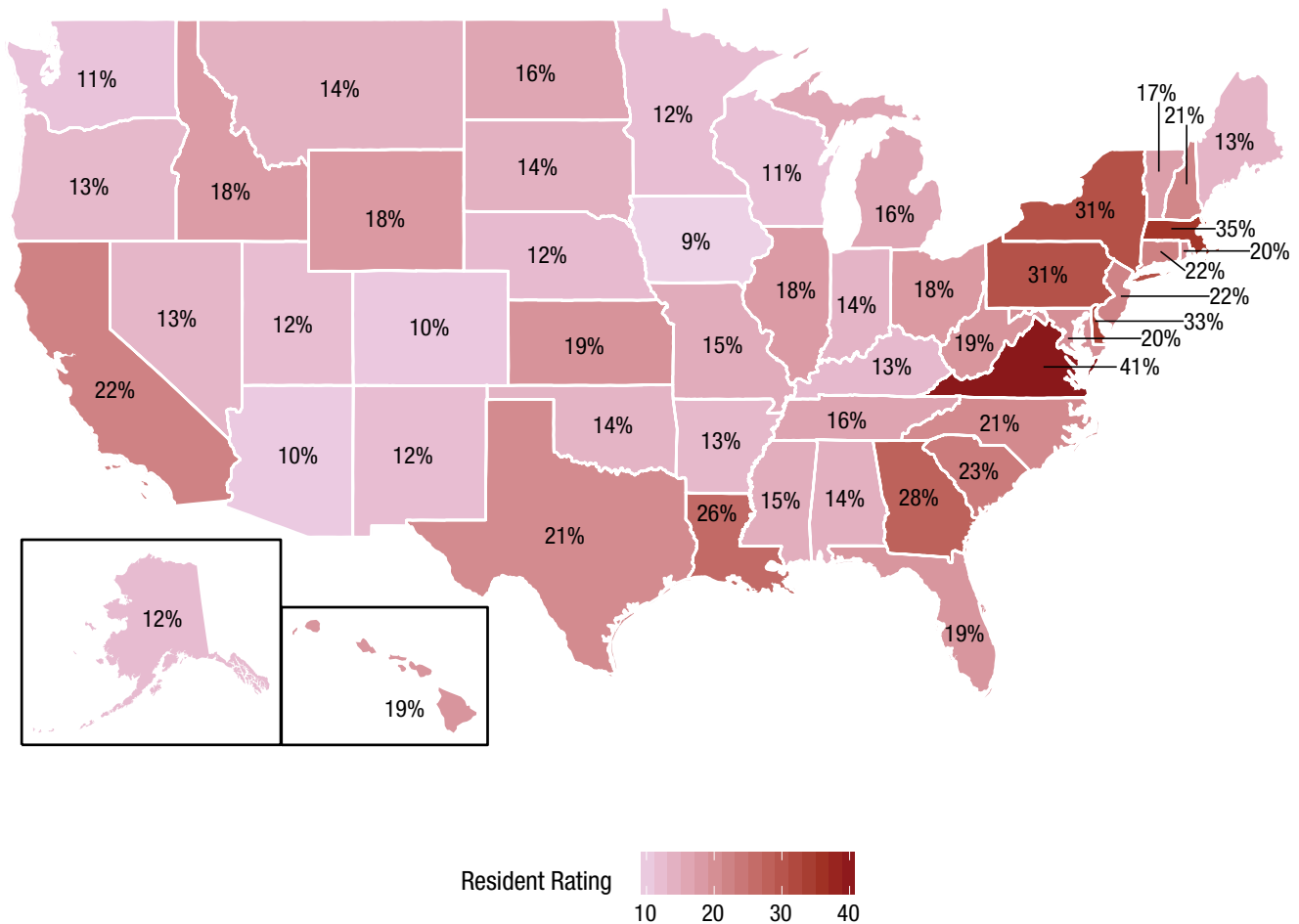
### *Resident and nonresident estimates of state contributions to U.S. history*

The average estimated contribution for residents from all states was 18.25%, 95% CI = [17.53%, 18.97%]. Summing the average contribution from all states (which logically should equal 100%) yielded an astounding 907%, indicating a strong bias to overclaim responsibility. The estimates from different states also ranged widely. Figure 1 provides a heat map showing the estimated resident contribution for each state (more details are available in Table S1 in the Supplemental Material). Iowans gave the lowest rating at 9%, whereas Virginians gave the highest rating at 41%, indicating that states showed highly variable estimates of responsibility. Of course, Virginians have contributed more to American history than Iowans, but these judged percentages are still quite high. The editor of this journal referred to such high numbers as “ludicrous,” and he has a point—Virginians and Iowans together were not responsible for 50% of U.S. history. Still, these consistently high numbers came from people in all 50 states.

Of course, there was also variability within a state in how people responded. Figure 2 shows the aggregate histogram of data from all 50 states, revealing a strong positive skew. Although most estimates (72%) were below or equal to 20%, there were a number of much higher responses, particularly in eastern states (e.g., Virginia, Delaware, and Massachusetts), indicating that some people thought that their home states had made hugely significant contributions to U.S. history. Another way of visualizing the distributions (broken down by state) is with a box-and-whisker plot, as seen in Figure S1 in the Supplemental Material.

Although there is no reason to expect a normal distribution with these data (it is entirely plausible that some respondents truly believed that their state had made the majority of important contributions to U.S. history), examining the median response for each state yields a similar conclusion. The median response was

## Resident Ratings by State



**Fig. 1.** Heat map of residents' ratings of their state's contributions to U.S. history. Darker colors and higher percentages represent a larger estimated contribution to U.S. history. Details on the resident ratings are available in Table S1 in the Supplemental Material available online.

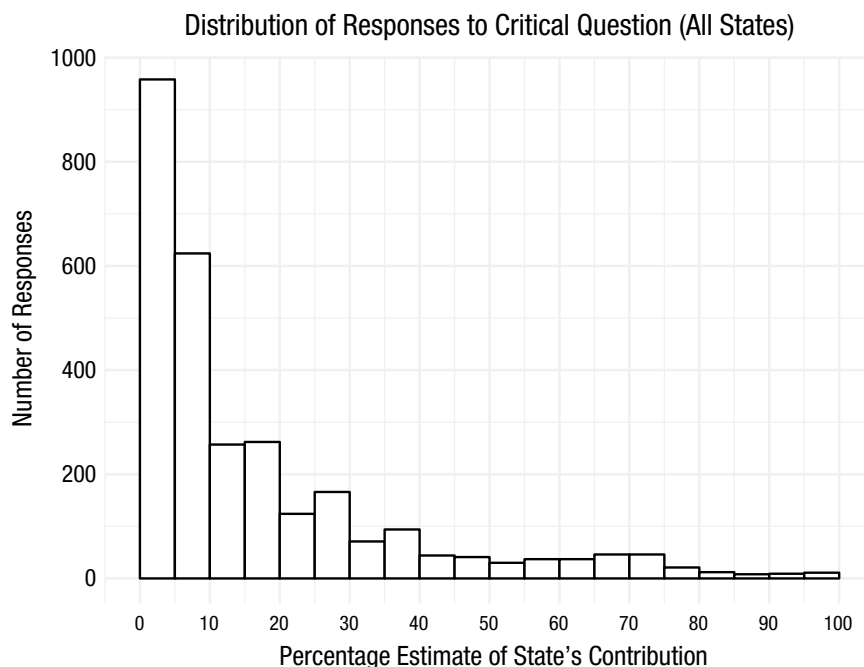
10%, ranging from a minimum of 5% reported by residents of Alaska, Idaho, Iowa, Nebraska, Nevada, New Mexico, and South Dakota, to a maximum of 39.5% reported by residents of Virginia (Table S2 and Fig. S2 in the Supplemental Material display all of the state medians and a heat map of medians, respectively). The total of the median rating for all states was 567.5%, again showing a strong narcissistic bias.

A second way to examine a narcissistic bias is to have people who did not grow up in a state (nonresidents) answer the same question as residents. In our study, after rating their home state, people rated 10 randomly selected states so that we obtained an average of 572 ratings (range = 529–621) per state. As expected, these nonresident ratings were much lower than the resident ratings: The average nonresident rating for all states was 11.51%, 95% CI = [11.32%, 11.70%]. Wyoming received the lowest estimate from nonresidents at 7%, and Virginia received the highest estimate at 24%. The summed nonresident estimate for all states was 576%,

still far above 100% but nowhere near 907%. By subtracting the total nonresident rating from the resident rating, we can estimate a narcissistic bias of 331% of overclaiming across all states.

Examining the nonresident medians conveyed a similar story. The median response for the nonresident ratings was 5%, ranging from a minimum of 2% assigned to North Dakota and Wyoming to a maximum of 16% assigned to Massachusetts (Virginia received a median percentage of 15%). The total median nonresident rating was 282.5%. Subtracting the total median resident rating from the total median nonresident rating yielded a difference of 285%. Thus, even when using the medians, a more conservative estimate, we still found evidence of a strong narcissistic bias.

By subtracting the nonresident ratings from the resident ratings, we calculated a Narcissistic Index for each state, which provides a better estimate of narcissism. For example, Virginia had the highest average resident rating (at 41%), but nonresidents gave Virginia a rating



**Fig. 2.** Distribution of responses to the critical question (“How much has your home state contributed to U.S. history?”), aggregated over all residents in all states ( $N = 2,898$ ).

of 24%, indicating that they, too, believed that Virginians had made substantial contributions to U.S. history (although not as substantial as Virginians believed). Thus, the Narcissistic Index adjusts the self-rating by taking into account nonresident estimates of that state's contributions.

Figure 3 shows a Narcissistic Index heat map of the United States, with warmer colors representing a larger Narcissistic Index. As expected, resident ratings were higher than nonresident ratings in every state but one. The single exception was Washington state, where the residents gave a lower rating than nonresidents. This outcome probably occurred because nonresidents may have been thinking of Washington, D.C., rather than Washington state when making their ratings, whereas Washington state residents would have correctly been thinking only about Washington state. We did not post a survey for people living in Washington, D.C.

In short, we found a large narcissistic bias when people were asked to estimate how much their state has contributed to U.S. history. In the Supplemental Material, we report additional analyses and data that provide further support for the reliability of our findings. We replicate the finding after eliminating outliers, show that our exact question phrasing may have lowered each subject's response, and assess how various state-level demographics (such as population, wealth, education, and physical size) correlate (or do not correlate) with subject responses.

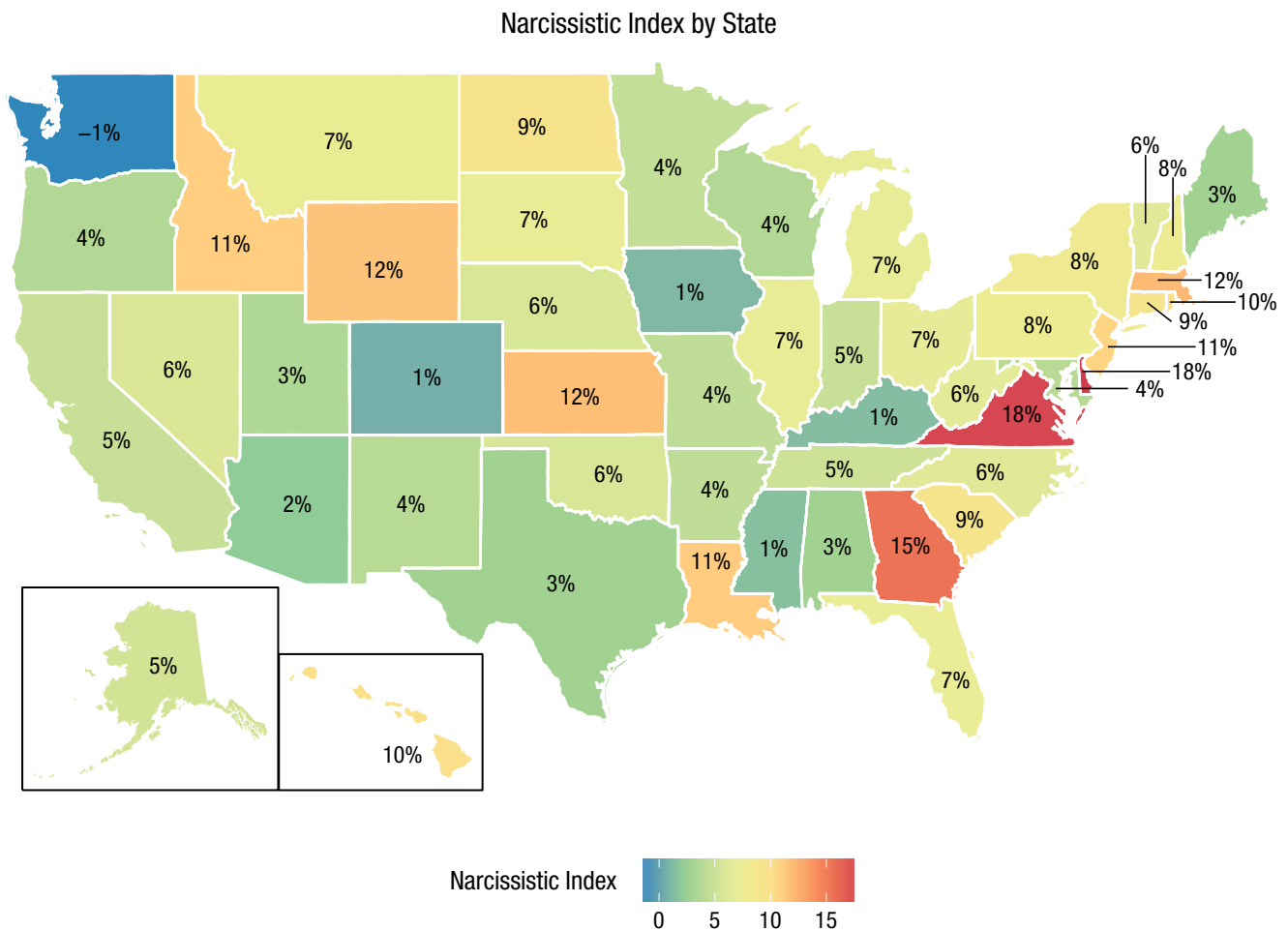
### ***Which states are the most narcissistic?***

We hypothesized in our preregistration that the original 13 colonies, Texas, and California would be the most narcissistic states. These predictions were based on the authors' judgments, not on a theory. Nonetheless, both the resident ratings and the Narcissistic Indices suggest that, in general, those states are more narcissistic. The predicted states reported an average contribution of 26.13% ( $Mdn = 22.46\%$ , 95% CI = [22.47%, 29.79%]), whereas the remaining states reported an average contribution of 14.73% ( $Mdn = 14.15\%$ , 95% CI = [13.53%, 15.93%]), a statistically significant difference,  $t(17.48) = 6.32$ ,  $p < .001$ ,  $d = 2.46$ . Likewise, the average Narcissistic Index for our predicted states was 9.49% ( $Mdn = 8.94\%$ , 95% CI = [6.94%, 12.04%]), significantly higher than the Narcissistic Index of 5.39% ( $Mdn = 5.29\%$ , 95% CI = [4.27%, 6.49%]) for the remaining 35 states,  $t(20.10) = 3.13$ ,  $p = .003$ ,  $d = 1.11$ . However, some unexpected states were also relatively narcissistic; Kansas and Wyoming, for example, were tied for the fourth highest Narcissistic Index with Massachusetts. Yet, overall, our predicted states showed more narcissism than the non-predicted states.

### ***Reducing narcissistic bias***

We hypothesized that we might be able to reduce the narcissistic bias by having subjects think about the





**Fig. 3.** Heat map of the mean Narcissistic Index for each state. The Narcissistic Index was calculated by subtracting the nonresident ratings for each state from the resident ratings. Warmer colors and higher percentages represent a larger Narcissistic Index, indicating that residents believed that their state contributed more to U.S. history than did nonresidents. Details about the Narcissistic Index and a heat map calculated with medians are available in Table S1 and Figure S3, respectively, in the Supplemental Material available online.

breadth of U.S. history (via taking a history quiz and generating events from history) before answering the critical question. **Contrary to our prediction, the history quiz did not influence the resident ratings.** People who were primed with the history quiz showed practically identical ratings (18.38%, 95% CI = [17.35%, 19.41%]) as people not primed with the history quiz (18.10%, 95% CI = [17.09%, 19.11%]). Thus, even though the goal of the quiz was to remind people about the scope and breadth of U.S. history, it appeared that they were still narcissistic when thinking about the contribution of their state to U.S. history.

A second, exploratory analysis, however, did reveal a way to reduce the narcissistic bias. After they completed the main survey, we asked all subjects to pick the three states that they thought had contributed the most to U.S. history (the most frequent responses are displayed in Table S4 in the Supplemental Material). Then, subjects estimated the contribution of their home state, the three

states they had selected as most important, and a category representing all other states. Critically, subject responses in this section had to add to 100% before the survey would advance. **When restricted in this way, the estimated contribution for a home state was reduced to 10.26%, 95% CI = [9.83%, 10.69%],** a statistically significant decrease from when the response was not bounded,  $t(2897) = 27.86, p < .001, d = 0.52$ . The summed contribution of the home states when using the 100% version of the question was **506%.** Thus, requiring people to have their percentages add to 100 ameliorated the narcissistic bias but did not eliminate it.

## Discussion

**Taken together, our results show that people display a strong narcissistic bias when remembering the contributions of their home states to U.S. history.** They claim that people from their own state had much greater

influence than could possibly be true. This bias persists even when people are reminded of the breadth of U.S. history. In addition, the degree to which Americans overclaim responsibility varies from state to state. This pattern is consistent with previous theorizing and research in collective memory (Wertsch, 2002; Zaromb et al., 2014). Finally, our study shows that previous research on overclaiming of responsibility with small groups (e.g., Schroeder et al., 2016) can be extended to large virtual groups such as “Minnesotans.” Four factors may explain this narcissistic bias.

### ***Why does the narcissistic bias occur?***

A first factor is some form of ego protection, in-group affection, or myside bias (Pronin, 2007). Research has demonstrated that people prefer to see themselves in a positive light (S. E. Taylor & Brown, 1988), prefer to associate with successful groups (Cialdini et al., 1976), view their own group more positively than other groups (Brewer, 1999), see themselves as being above average compared with others (e.g., Hoorens, 1993), and generally evaluate claims in a way that is biased toward their own beliefs (Stanovich, West, & Toplak, 2013). Strong association with a group increases collective narcissism (de Zavala et al., 2009). To the extent that people identify strongly with their state, they may exaggerate its contributions or weight its contributions more heavily than that of other states.

A second factor is the availability heuristic (Tversky & Kahneman, 1973). **People know more about their home state than other states:** They visit museums, tour historical sites, and even watch local historical reenactments. Furthermore, many states require **state-specific history as part of the public-school curriculum**, so children read textbooks describing the history of their state.<sup>2</sup> These sources provide factual information about people’s states and help to shape a narrative about the role of their home state, one in which certain ideas are emphasized and others ignored (Baumeister & Hastings, 1997; Stone & Hirst, 2014; Wertsch, 2002; Wertsch & Roediger, 2008). In short, people have more access to information about their home state than other states (meaning they will be more likely to retrieve it) and are likely to better understand the role of their state in U.S. history.

Our third and fourth factors relate to poor probabilistic reasoning. Kahneman and Tversky (1972), among others, have argued that people are not intuitive statisticians and struggle to make decisions involving uncertainty. For example, support theory (e.g., Tversky & Koehler, 1994) suggests that people focus on central hypotheses—how much their state has contributed—and neglect alternative hypotheses—how much other states have contributed (see also Thomas, Dougherty,

& Buttaccio, 2014). This perspective helps explain research showing that overclaiming of responsibility increases as group sizes grow (Schroeder et al., 2016). Savitsky, Van Boven, Epley, and Wight (2005), for example, suggested that in small groups, people lump the other members of the group together, which causes them to underestimate the contributions of other individual members (subadditivity). In our study, the “group” was the 50 U.S. states; thus, **subjects were likely evaluating the contribution of their own state in detail but treating the other 49 states as a single unit and underestimating their contribution.** Indeed, forcing subjects to explicitly consider other states (by having them provide percentages for their own state and others that total 100) reduced the narcissistic bias.

Finally, our fourth possible factor is that people tend to overestimate small quantities. Americans, for example, drastically overestimate the actual percentage of the population that is lesbian, gay, bisexual, and transgender (LGBT; 20% vs. 3%; Landy et al., in press). This pattern has been seen in a variety of judgment domains involving uncertainty (e.g., Hollands & Dyre, 2000) and is often explained with a psychophysical model that suggests that people are likely to make systematic errors both in the process of perceiving information and in the process of converting an internal feeling into an external estimate, such as making a quantitative rating (see Landy et al., in press, for discussion as applied to demographic estimates). In other words, even if people had perfect access to a complete and accurate history of the United States (unlikely) and no explicit bias or motivation in their perception of that information (also unlikely), they would probably still overestimate the contribution of their home state.

In short, several factors probably contributed to our central finding that people massively overestimate how much their home state has contributed to U.S. history. Future research will be needed to tease these factors apart, if possible, but all factors may play a role.

### ***Narcissistic bias as an example of collective memory***

In describing the work of Tversky and Kahneman, author Michael Lewis wrote, “People were blind to logic when it was embedded in a story” (Lewis, 2016, p. 325). In the current study, Americans were likely accessing the rich and detailed story of their state’s role in the history of the United States and neglecting to think about the question as involving some degree of math. For example, one reasonable approach to answering the central question is to assume an equal contribution from all states (2%) and then to adjust the contribution of your home state up or down on the basis of how

long it has been in the union, what important events occurred there, and so on. But instead, people were basing their judgments on what they remember about their home state (and treating the other 49 states as a unit). Collective memory has been characterized as a subjective view of the past in which details and facts are blurred in the interest of maintaining a streamlined, egocentric narrative (Wertsch, 2002; Wertsch & Roediger, 2008); the story can trump the facts of what actually happened. Our results show that Americans from all states display a strong ethnocentric or narcissistic bias when remembering the contribution of their home state to U.S. history and that residents from different states display differing levels of bias.

### Concluding comments

In closing, we have shown a massive narcissistic bias in the way that people from the United States remember the contributions of their home states to U.S. history. Although such overclaiming effects have been shown before in small groups, we show that these effects also occur with huge groups of people, connected only by the place where they grew up (see also Zaromb et al., in press). Furthermore, this overclaiming persists even when people are reminded of the scope of U.S. history, and the degree of overclaiming differs from state to state.

Understanding how people remember the contribution of their state to the United States is important. The current controversies in the United States over how to commemorate the Civil War (and the removal of Confederate monuments) revive arguments over states' rights and when states should claim exceptions to federal mandates. Historically, southern states have done so, but in the current political climate, states such as California, New York, Oregon, and Colorado are claiming exceptional status (e.g., legalizing marijuana despite federal laws outlawing its use). The ethnocentrism or narcissism of people in different states is strong and can be seen in state mottoes and slogans (e.g., "Live Free or Die," "Don't Mess with Texas") and in other ways. Such excessive state pride is usually relatively harmless but can spill over into aggression, as occurred in the years leading up to the Civil War. Demonstrating that such state narcissism is not malicious or antagonistic per se but likely the result of several psychological factors may help to ameliorate such tensions.

### Action Editor

D. Stephen Lindsay served as action editor for this article.

### Author Contributions

A. L. Putnam and H. L. Roediger, III, conceived of the study idea. M. Q. Ross and L. K. Soter created the survey software with oversight by A. L. Putnam, and A. L. Putnam ran the

statistical analyses with assistance from M. Q. Ross and L. K. Soter. All authors contributed to the study design and writing of the article and approved the final version of the manuscript for submission.

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### Declaration of Conflicting Interests

The author(s) declared that there were no conflicts of interest with respect to the authorship or the publication of this article.

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### Supplemental Material

Additional supporting information can be found at <http://journals.sagepub.com/doi/suppl/10.1177/0956797618772504>

### Open Practices



All data and materials have been made publicly available via the Open Science Framework (OSF) and can be accessed at <https://osf.io/tmjqs/>. The design and analysis plans for the experiment were preregistered at the OSF (<https://osf.io/m3w2g/>). The complete Open Practices Disclosure for this article can be found at <http://journals.sagepub.com/doi/suppl/10.1177/0956797618772504>. This article has received badges for Open Data, Open Materials, and Preregistration. More information about the Open Practices badges can be found at <http://www.psychologicalscience.org/publications/badges>.

### Notes

1. Details on each state's sample are displayed in Table S1 in the Supplemental Material available online.
2. In a follow-up study (described in the Supplemental Material), we showed that 81% of Amazon Mechanical Turk workers reported that they remembered studying state history in school.

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