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Teaching *Current Directions in Psychological Science* offers advice and guidance about teaching a particular area of research or topic covered in this peer-reviewed APS bimonthly journal, which features reviews covering all of scientific psychology and its applications.

**Why People Forget and Falsely Remember U.S. Presidents**

**The Likely Aftermath of Adversity: Harm, Resilience, or Growth?**

**Why People Forget and Falsely Remember US Presidents**

*By C. Nathan DeWall*


Imagine a classroom of American students preparing to take a US history test. The year is 2219. Asked to recall all US Presidents, preferably in order, students breeze through the test for a while. Then, after a few minutes of work, their responses slow, their brows furrow, and they give up. Although this test will take place 200 years in the future, the research highlighted by K. Andrew DeSoto and APS Past President Henry L. Roediger, III (2019) hints at which US presidents these future students will remember and forget.

George Washington and the most recent presidents will stand out, but Barack Obama and Donald Trump will likely fade from collective memory. That might seem unimaginable now. Swaths of today’s Americans know intimate details about both Obama and Trump. Obama practiced self-control throughout his presidency, including his nightly ritual of eating only seven almonds, though he later confessed to succumbing to the temptation for sweets on occasion (Shear, 2016). Trump, in contrast, flaunts a less restrained approach to life, tweeting titillating texts and wolfing down McDonald’s sandwiches. Not only will few future Americans remember these newsworthy items — they will likely forget that Obama or Trump ever occupied the White House.

Why? US Presidents aren’t immune from the classic serial position curve (Ebbinghaus, 1913). Memory for US presidential order perks up at the beginning (*primacy effect*), sags in the middle, and rebounds at the end (*recency effect*) (Roediger & DeSoto, 2014; DeSoto & Roediger, 2019). Distinctiveness increases memory for Presidents who languish in the middle. Normally, people forget the 16th position in a 45-item list. But when Abraham Lincoln occupies that position — having won the Civil War, perhaps making the rest of the presidential list possible — people tend to remember.
To take this cutting-edge research into the classroom, I reached out to DeSoto and Roediger. They offered several useful examples of easy-to-administer classroom activities. In the first activity, ask students to recall as many US presidents as possible, putting them into correct ordinal position from 1 to 45. Give students 5 minutes to complete the activity. Students can also take the quiz on the popular website Sporcle.com.

Next, ask students to use their laptops, smartphones, or other devices to check their answers. If the test is completed online, students will receive automatic feedback when their time is up. Have students review their results with a partner and try to spot unusual patterns in their data. DeSoto is confident that your students’ responses will mimic his students’ responses. “Patterns of presidential recall have been very stable over time,” he told me. “I’m confident that the results will appear akin to a serial position curve — good recall for the first and most recent presidents, and perhaps also good memory for Lincoln, too.”

DeSoto encourages student pairs to consider: Why do we see these patterns? How might members of your generation respond differently compared with members of previous generations? What will these patterns look like in 100 or 200 years? Based on your responses and knowledge of the serial position curve, how likely would students be in 200 years to forget that Barack Obama and Donald Trump were US Presidents?

The second activity tests students’ recognition of US presidents. Whereas the first activity tested students’ recall (similar to a fill-in-the-blank test), this activity will measure how well students can accurately recognize someone as a current or former president (similar to a multiple-choice test). When comparing performance on these two types of memory, recognition often trumps recall. If you’re like most people, it’s easier to recognize more names of Santa’s eight reindeer than to recall them.

Drawing on Roediger and DeSoto (2016), ask students whether they think the following individuals were US presidents (Yes or No) and how confident they are in their judgments (0 = not at all confident, 100 = absolutely confident):

1. George Washington
2. Alexander Hamilton
3. Thomas Jefferson
4. Franklin Pierce
5. Benjamin Franklin
6. Chester Arthur
7. Patrick Henry
8. John Tyler
9. Paul Revere
10. George Bush

How many people did students identify as US presidents? The correct answer is six: Washington, Jefferson, Pierce, Arthur, Tyler, and Bush. Students should perform well on this recognition task. In one study, American participants correctly identified 88% of prior presidents (Roediger & DeSoto, 2016). What percentage of your students incorrectly identified Alexander Hamilton as a U.S. president? Seventy-one percent of Roediger and DeSoto’s participants made this mistake. Why might so many people make this recognition mistake? Were they more confident with their “yes” responses?
As with recall, DeSoto and Roediger are confident that your students will show responses similar to those of their students and research participants. “There’s no replication crisis in presidential recall and recognition,” Roediger told me. “The same result every time.”

Our collective memory is a novel example of revisionist history, mixing our subjective interpretation of objective historical events with our identity. More broadly, this research shows us how quickly well-known individuals fade from our collective memory. With the next US presidential election looming, we should remember that the candidates and eventual president will fade from memory sooner than we might expect.

References


**The Likely Aftermath of Adversity: Harm, Resilience, or Growth?**

*By David G. Myers*


At various times, humans experience deprivation, suffering, bereavement, and even trauma. After the initial emotions of such adversity subside, Frank Infurna and Eranda Jayawickreme (2019) note, there are three possible long-term outcomes:

**Harm**

Harm entails the enduring toxic consequences of deprivation or trauma. Students could perhaps generate examples from psychological research, such as the following:

- **Severe deprivation**: Early experiences can have lifelong scars, as exemplified by Harlow’s isolation-reared monkeys; the orphanage-reared children of Ceaușescu’s Romania, whose deprivation enduringly impaired their brain development, intelligence, and social development (Nelson, Fox, & Zeanah, 2014); and the stories of children scarred after family separation by
immigration authorities (Chapin, 2019).

- **The worst loss**: Certain catastrophic events can have a deep emotional impact, such as the lingering pain of a child’s death (Li, Laursen, Precht, Olsen, & Mortensen, 2005).
- **The toll of trauma**: Other events can also leave a “long trail,” such as the distress experienced after school shootings or the toxicity of the prolonged stress of burdensome caregiving (Aneshensel, Pearlin, Mullan, Zarit, & Whitlatch, 1995; Mazzei & Jordan, 2019).

**Resilience**

Some individuals show resilience, which is characterized by stable and healthy functioning before and after adversity. Again, examples come to mind:

- **The striking stability of subjective well-being**: Negative as well as positive emotions have a short half-life, in that most people recover from romantic breakup, job losses, and infirmities (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998). As the Psalmist observed long ago: “Weeping may tarry for the night, but joy comes with the morning” (Psalms 30:5).
- **The successful coping of people with disabilities**: After suffering paralysis, blindness, or even locked-in syndrome, dispositionally agreeable people are seldom permanently depressed and they often regain near-normal life satisfaction (Boyce & Wood, 2011; Bruno, Bernheim, Ledoux, Pellas, Demertzi, & Laureys, 2011).
- **The hardiness of some trauma survivors**: Even after being stunned by wartime trauma, terrorism, or natural disaster, a common human response is “a stable trajectory of healthy functioning” (Bonanno, 2012). The life successes of children who survived the Holocaust testify to human strengths (Helmreich, 1992).

**Growth**

In some cases, people can experience positive change as a result of overcoming challenges and crises, as expressed in the aphorism “What doesn’t kill you makes you stronger.” Examples include:

- **Cancer survivors gain new perspective**: A brush with death reportedly leaves many survivors with altered priorities, a richer spirituality, and a greater appreciation of each day (Tedeschi & Calhoun, 2004).
- **Coping with challenges strengthens coping ability**: Hardship short of trauma can boost mental toughness (Seery, 2011). The opposite — growing up amid affluence — can elevate risks of anxiety, depression, substance abuse, and eating disorders (Lund & Dearing, 2012; Luthar, Barkin, & Crossman, 2013).
- **Challenges that beget growth**: Skilled athletes, entertainers, students, and teachers thrive and excel — and grow in skill – when challenged (Blascovich & Mendes, 2010). And sometimes failure is the parent of success. In late 2018, after being the first #1 seed NCAA-tournament men’s basketball team to lose to a lowly #16 seed, “a soul-crushing embarrassment,” University of Virginia coach Tony Bennett reflected, “If you learn to use adversity right, it can take you to a place you couldn’t have gone any other way” (Feinstein, 2018). In 2019, as if scripted by Hollywood, Virginia won the national championship, leading one jester to tweet: “Bennett sabotaging his 1 seed last year to humble them and motivate them was next level coaching. Can’t wait to see the copycat coaches follow his lead in years to come.”
So, there are circumstances when adversity begets harmful impairment, stable resilience, and positive growth. But, Infurna and Jayawickreme ask, how common is each — and in what situations do they occur? When is adversity injurious, and when does it come with a silver lining? And even if “all things work together for [some] good,” can we differentiate the good from the bad consequences? Might some adversity, for example, promote empathy and compassion, while harming health and happiness?

Although human adaptation enables remarkable resilience, the point can be overstated. Studies that track lives over time reveal that, following divorce, job loss, or a spouse’s death, people’s well-being does rebound — but often to a point short of their pre-adversity status (Diener, Lucas, & Scollon, 2006; Infurna & Luthar, 2016; Jayawickreme & Blackie, 2014). Moreover, Infurna and Jayawickreme note problems with trusting people’s autobiographical recall of their own growth.

To illustrate both the research topic and the methodological issues, instructors can invite students to write answers to two questions:

1. In your own life, what adversity have you experienced? Have you faced a severe stress, a significant loss, a disheartening disappointment, or a difficult hardship?
2. Looking back, did that adversity harm you? Were you resilient (unchanged)? Or are you, in some way, stronger for it?

Alternatively, instructors might ask: “Imagine asking people with depression if they felt better compared with 6 months ago. Is that a valid method for measuring depression? Why or why not?”

Some autobiographical stories will be too personal to share. Perhaps a few who feel comfortable doing so might briefly share their example of adversity and their response to it. Given studies showing that some 9 in 10 adolescents “report growth following adversity,” most will likely tell such stories.

Without discounting or insulting the authenticity of anyone’s story — “Adversity sometimes does beget growth, and we can consider these genuine instances of that” — instructors can also ask students why some researchers (including Infurna and Jayawickreme) hesitate to rely exclusively on people’s retrospective testimonials. Doing so assumes that people can accurately recall who they used to be, how they differ from their former self, and the source of any change.

Indeed, consider what we have learned from participants in programs that target weight control, smoking cessation, academic support, brain training, and delinquency prevention. By constructing a memory of how bad they used to be and touting how good they are now, clients typically testify to substantial growth. This justifies their expenditure of time, effort, and resources — even when clinical trials reveal no therapeutic benefit. As D. R. Wixon and James Laird (1976) have observed, “The speed, magnitude, and certainty [with which people revise their own histories] is striking.” Thus, to judge by testimonials, even ineffective therapies seem to promote growth.

The Socratic instructor might ask: “Given that we cannot experiment with adversity by randomly assigning some people to trauma, what methodology would allow us to better discern how often adversity actually produces harm, resilience, and growth?”

Ideally, say Infurna and Jayawickreme, longitudinal research would compare people “before and after
adversity” and with multiple outcome measures. By so doing, we can better understand when, to what extent, and how adversity produces harm, resilience, and growth.

References


