

# Further Evidence of an Increase in Narcissism Among College Students

Jean M. Twenge,<sup>1</sup> Sara Konrath,<sup>2</sup> Joshua D. Foster,<sup>3</sup>  
W. Keith Campbell,<sup>4</sup> and Brad J. Bushman<sup>2</sup>

<sup>1</sup>San Diego State University

<sup>2</sup>University of Michigan

<sup>3</sup>University of South Alabama

<sup>4</sup>University of Georgia

**ABSTRACT** Our meta-analysis also finds no change over time in Narcissistic Personality Inventory (NPI) scores among California college students, most likely due to the cultural and ethnic shifts at the University of California campuses over this time (especially the large increase in Asian-American student enrollment). Students in the rest of the country, from 27 campuses, show an increase of  $d = 0.41$  in narcissism over 24 years. The finding that high school students' self-esteem does not change replicates our previous cross-temporal meta-analysis. The self-enhancement measure used by the authors is flawed, as it uses self-reported grades rather than an objective measure. Sampling issues are minor, as the meta-analysis was a representative sampling of college students. Finally, problems with a simplistic "good" and "bad" labeling of NPI factors are discussed.

We appreciate Trzesniewski, Donnellan, and Robins (this issue) taking the time and effort to address the important topic of changes in narcissism. Although they bring up many important points, their critique ultimately strengthens our case that narcissism has risen over the generations among college students.

## *Changes in Narcissism at the University of California (UC) Campuses*

Trzesniewski et al. (this issue) report that they find little change in narcissism in samples collected 1979–2007 at campuses of the

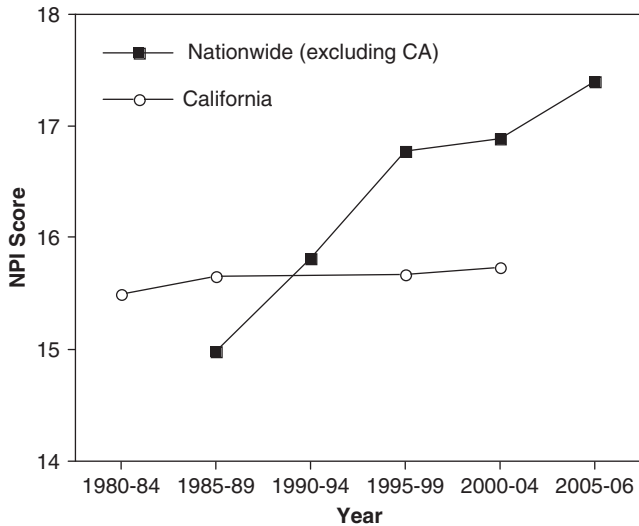
Address correspondence to Jean M. Twenge, Department of Psychology, San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-4611; E-mail: jtwenge@mail.sdsu.edu.

*Journal of Personality* 76:4, August 2008

© 2008, Copyright the Authors

Journal compilation © 2008, Blackwell Publishing, Inc.

DOI: 10.1111/j.1467-6494.2008.00509.x



**Figure 1**

NPI trends in California (primarily UC campuses) and the remainder of the United States, based on the samples in the cross-temporal meta-analysis.

University of California (UC), in contrast to our nationwide analysis finding significant increases in narcissism. We examined the seven samples from our meta-analysis ( $N = 2,652$ ) from universities in California, all but one from UC campuses, and also found no change over time ( $\beta = 0.16$ ,  $p = 0.74$ ; see Figure 1). For example, Trzesniewski et al.'s UC Davis sample from 2003 had a mean of 14.87, compared to the mean of 17.30 for the non-California colleges 2003–2006 ( $N = 4,371$ ). Excluding the California samples, narcissism increased 1988–2006 across 27 campuses,  $\beta = 0.51$ ,  $p < .001$ ,  $k = 78$ ,  $N = 13,823$ ,  $d = 0.30$ . The year-by-year change is  $B = 0.116$ , which increases the effect size to  $d = 0.41$  for the 24-year span of the main analysis.

Why has narcissism increased in the rest of the country but not at the UC campuses? Cultural shifts unique to the UC system may be the cause. In 1996, California passed Proposition 209, prohibiting UC campuses from using race or ethnicity as a factor in admissions. This decreased the number of Black and Hispanic students and increased the number of Asian American students. Asians and Asian Americans score significantly lower than Whites, Blacks, and Hispanics on measures related to individualism, including narcissism

(e.g., Heine, Lehman, Markus, & Kitayama, 1999; Oyserman, Coon, & Kimmelmeier, 2002; Twenge & Crocker, 2002). Asian Americans were 27% of new freshmen at UC Berkeley in 1983; their enrollment nearly doubled to 47% in 2007. New freshmen were 30% Asian American at UC Davis in 1996 and 43% in 2006. The ethnic change, along with admissions standards increasingly emphasizing objective academic achievement, may have shifted the norm for personality and behavior on these campuses and suppressed the generational change in narcissism—perhaps even for non-Asian students, as this shift is a cultural marker and not just an individual characteristic. The ethnic composition and the large shifts over time are both unique to the UC campuses: Nationwide, only 6% of college students, and 4% of the U.S. population, is of Asian descent, and this has gone up only slightly since the 1980s.

The power of meta-analysis lies in examining data collected at many sites across the nation (in this case, at 31 campuses). The UC Davis data illustrate the danger in relying on one campus for birth cohort analyses, especially when that campus has undergone significant shifts in its student population and is an outlier on the trait in question.

#### *Monitoring the Future (MTF) Data*

Trzesniewski et al. (this issue) examined self-enhancement in the Monitoring the Future data using the residual of the correlation between self-rated intelligence and self-reported high school grades. Even when an objective measure of performance taken at a different time is used, this type of self-enhancement correlates only modestly with narcissism ( $r = .22$ ; Paulhus & Williams, 2002). It is completely unknown how narcissism correlates with Trzesniewski et al.'s measure, which uses self-reported grades measured at the same time as self-reported intelligence. Even if most students accurately report their grades, those who inflate their reports may be the same ones who inflate their intelligence (Farwell & Wohlwend-Lloyd, 1998). In addition, the MTF survey does not ask for GPA but instead a self-report of "your average grade so far in high school" on a 9-point scale, an even more subjective measure. Thus Trzesniewski et al.'s calculation relies on two subjective measures, both of which are correlated with narcissism (e.g., Farwell & Wohlwend-Lloyd, 1998; in contrast, objective measures of performance are not correlated with narcissism). In consequence, the residual scores are virtually meaningless.

Second, self-reported intelligence and grades are four items apart in the same assessment, which encourages consistency between the two responses. Third, the intelligence question asks respondents to compare themselves to others their age, which reduces the opportunity for self-enhancement. Fourth, this is essentially a difference score. As such, it has the usual problems of difference scores: It is difficult to tell if beliefs about one's own intelligence have increased *and* beliefs about peer intelligence have increased, or both have decreased, or both have stayed constant. Last, self-reported grades have increased substantially over time in the MTF data. Only 18% reported earning an A or A- average in 1976 ( $M = 5.78$ ), compared to 33% in 2006 ( $M = 6.34$ ;  $d$  across 30 years = 0.29). The number who consider themselves "A students" has thus increased by over 80%. Thus the primary story in the MTF data is one of significant grade inflation (or, at least, self-reported grade inflation)—a clear indicator of a culture of narcissism.

Trzesniewski and colleagues discuss data from the MTF data set showing no increase in high school self-esteem over time. However, they fail to mention that these data actually replicate our previous cross-temporal finding that high school students' global self-esteem has not changed over time ( $\beta = 0.05$ ,  $k = 35$ ,  $N = 15,454$ ; see Table 2, Twenge & Campbell, 2001). Just as with the UC narcissism data, cross-temporal meta-analysis yields the same results. Our analysis also found an increase in college students' Rosenberg self-esteem scores and increases since 1980 in Coopersmith self-esteem among elementary and middle school students (Twenge & Campbell, 2001). Perhaps the social forces of high school mask birth cohort changes in that age group. This is an important area for future research.

The findings for locus of control in the MTF data do not directly contradict Twenge, Zhang, and Im (2004) since that meta-analysis did not examine high school samples. Instead, it found increasing externality in schoolchildren aged 9 to 14 and in college students ( $N = 25,864$ ). The purported lower methodological quality of dissertations is irrelevant because the meta-analysis gathered means rather than effect sizes dependent on study design.

### *Convenience Sampling*

We are uncertain why Trzesniewski et al. (this issue) claimed that our analysis relied on convenience sampling. This is a term with an

inexact definition because it is used differently across fields and is a matter of degree—perfectly random samples of people are virtually nonexistent. In psychology, it is most often applied to shopping mall surveys with low response rates, or to samples of one's friends, and not to samples of college students from subject pools. However, it is important to consider whether our meta-analysis is a representative sample of the data available on college students' NPI scores. It is. Reporting means in articles is not systematically biased by the level of the mean or how the mean has changed over time.

A separate issue is the data available on college student NPI scores. Although only some researchers study narcissism, there is no biased or nonrandom relationship between the location of the researchers and the campus's mean NPI score. Thus a random sample of the population of college students at 4-year universities would likely yield similar results.

If we use Trzesniewski et al.'s broad definition of convenience samples (data not sampled randomly from the general population), the MTF data set on which they rely is also a convenience sample. MTF collects data only at the 66% to 80% of high schools that agree to participate. Even then, 79% to 83% of students at these schools complete the survey, and even fewer answer all of the questions. In addition, "nonresponse in the MTF is more common among boys, nonwhites, students in lower academic tracks, and students with lower grade point averages" (Reynolds, Stewart, MacDonald, & Sischo, 2006, p. 192).

Even if we apply the term "convenience" only to less representative samples like college students, the vast majority of both descriptive and experimental psychology research uses such samples. The authors of these studies routinely generalize from college students to entire populations (e.g., Meston & Buss, 2007; Terracciano et al., 2005). If it were truly "Epidemiology 101" not to use nonrepresentative samples in descriptive studies, our psychology journals would be nearly empty. So would the vitas of the authors of the comment. As just one example, Robins, Trzesniewski, Tracy, Gosling, and Potter (2002) examined Internet participants, a sample more reminiscent than ours of *Literary Digest's* 1936 poll, conducted by telephone when much of the population did not have telephone service. The same, of course, was true of the Internet in 1999–2000. This study examined age differences in self-esteem, drawing broad conclusions about people based on this nonrepresentative sample with

possible confounds between likelihood of participation and age. This is not to condemn their research—we have used Internet samples ourselves—but instead to explain why we are puzzled that Trzesniewski et al. would raise this issue.

Finally, college students are an important group to study. Two-thirds of high school graduates enroll in college (a much more meaningful indicator than the percentage of people age 18–24 in college, the statistic used by Trzesniewski et al., which includes people who have been in college in the past or may enroll in the future). College students, particularly those at 4-year universities, are also their generation's future professionals and leaders. Thus, examining college students is central to a discussion of generational change.

### *The Ecological Fallacy*

We are also perplexed as to why Trzesniewski et al. brought up the issue of the ecological fallacy/alerting correlations, as our article clearly states that we calculated effect sizes using the standard deviation for individual samples (rather than the *SD* among the means), which avoids this problem.

### *Subscales of Narcissism*

Trzesniewski and colleagues note that cohort change in NPI scores might differ by subscale and argue that the “good” subscales of the NPI have increased more than the “bad” subscales. Even though the UC Davis samples are not consistent with others in the United States, trends in the NPI subscales for this population are still interesting.

Although we agree that, for example, the entitlement factor is an especially good predictor of aggression (Konrath, Bushman, & Campbell, 2006), the parsing of narcissism into “good” and “bad” factors is simplistic for at least two reasons. First, narcissism is a trade-off as it can lead to positive outcomes for the self in the short term but negative outcomes for others and the self in the long term (Campbell & Buffardi, in press). Paulhus (1998) found that narcissism predicted high initial likeability, but later distaste, on the part of strangers. Likewise, narcissists are skilled at becoming leaders but have problems later on (e.g., Brunell, Gentry, Campbell, Hoffman, & Kuhnert, 2007; Hogan & Kaiser, 2005). Second, with narcissism, even the exact same behavior can have “good” and “bad” conse-

quences depending on the level of analysis. In a tragedy of the commons dilemma paradigm, narcissism predicted positive individual performance in the short run (good) but poor performance among all (bad), which effectively results in longer-term resource destruction (bad; Campbell, Bush, Brunell, & Shelton, 2005). An apparently adaptive behavior from the individual's perspective is a destructive behavior from the group's perspective. Thus, we are less than optimistic about the benefits of increased individual-level narcissism for a society, although there might be some areas of society (e.g., entrepreneurship) where there might be benefits. More research is clearly needed on the cultural-level consequences of elevated individual-level narcissism.

### *Self-Esteem Programs*

In their conclusion, Trzesniewski et al. suggest that self-esteem programs might be beneficial. However, many self-esteem programs, "I Am Special" song sessions, and "All About Me" lessons are taught to all students, not just those with low self-esteem. Thus Americans are administering a psychological intervention to an entire population of children when only a small minority shows any sign of needing it. This is akin to giving all third graders Ritalin because a few of them have ADHD. Ritalin might help the performance of many students in the short run (hence, its popularity as a "study aid"), but this is not worth the risk of longer-term negative outcomes.

We do agree that the outcomes of self-esteem programs, including their effect on narcissism, should be studied using longitudinal methods. Self-esteem programs are a medicine with unknown effects. The content of the programs suggests that the effects are likely to be negative for normal children. "I am special" teaches narcissism rather than self-esteem. Many programs include generic praise, which demotivates children; in contrast, praising effort leads to increased motivation (Mueller & Dweck, 1998). Furthermore, low self-esteem leading to negative outcomes like delinquency (Donnellan et al., 2005) may be caused by a deeper underlying difficulty like social exclusion by family or peers, problems that self-esteem programs are unlikely to remedy.

## REFERENCES

- Brunell, A. B., Gentry, W. A., Campbell, W. K., Hoffman, B. J., & Kuhnert, K. W. (2007). *Leader emergence: The case of the narcissistic leader*. Unpublished manuscript: University of Georgia.

- Campbell, W. K., & Buffardi, L. E. (in press). The lure of the noisy ego: Narcissism as a social trap. In J. Bauer & H. Wayment (Eds.), *Quieting the ego: Psychological benefits of transcending egotism*. Washington, DC: American Psychological Association.
- Campbell, W. K., Bush, C. P., Brunell, A. B., & Shelton, J. (2005). Understanding the social costs of narcissism: The case of tragedy of the commons. *Personality and Social Psychology Bulletin*, *31*, 1358–1368.
- Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., Moffitt, T. E., & Caspi, A. (2005). Low self-esteem is related to aggression, antisocial behavior, and delinquency. *Psychological Science*, *16*, 328–335.
- Farwell, L., & Wohlwend-Lloyd, R. (1998). Narcissistic processes: Optimistic expectations, favorable self-evaluations, and self-enhancing attributions. *Journal of Personality*, *66*, 65–83.
- Heine, S. J., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review*, *106*, 766–794.
- Hogan, R., & Kaiser, R. B. (2005). What we know about leadership. *Review of General Psychology*, *9*, 169–180.
- Konrath, S., Bushman, B. J., & Campbell, W. K. (2006). Attenuating the link between threatened egotism and aggression. *Psychological Science*, *17*, 995–1001.
- Meston, C. M., & Buss, D. M. (2007). Why humans have sex. *Journal of Sex and Marital Therapy*, *26*, 51–65.
- Mueller, C. M., & Dweck, C. S. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality and Social Psychology*, *75*, 33–52.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, *128*, 3–72.
- Paulhus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality and Social Psychology*, *74*, 1197–1208.
- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism and psychopathy. *Journal of Research in Personality*, *36*, 556–563.
- Reynolds, J., Stewart, M., MacDonald, R., & Sischo, L. (2006). Have adolescents become too ambitious? High school seniors' educational and occupational plans, 1976 to 2000. *Social Problems*, *53*, 186–206.
- Robins, R. W., Trzesniewski, K. H., Tracy, J. L., Gosling, S. D., & Potter, J. (2002). Global self-esteem across the life span. *Psychology and Aging*, *17*, 423–434.
- Terracciano, A., et al. (2005). National character does not reflect mean personality trait levels in 49 cultures. *Science*, *310* (October 7), 96–100.
- Trzesniewski, K. H., Donnellan, M. B., & Robins, R. W. (2008). Do today's young people really think they are so extraordinary? An examination of secular changes in narcissism and self-enhancement. *Psychological Science*, *19*, 181–188.
- Trzesniewski, R. H., Donnellan, M. B., & Robins, R. W. (2008). Is "Generation Me" really more narcissistic than previous generations? *Journal of Personality*, *76*, 903–917.

- Twenge, J. M., & Campbell, W. K. (2001). Age and birth cohort differences in self-esteem: A cross-temporal meta-analysis. *Personality and Social Psychology Review*, *5*, 321–344.
- Twenge, J. M., & Crocker, J. (2002). Race and self-esteem: Meta-analyses comparing Whites, Blacks, Hispanics, Asians, and American Indians. *Psychological Bulletin*, *128*, 371–408.
- Twenge, J. M., Zhang, L., & Im, C. (2004). It's beyond my control: A cross-temporal meta-analysis of increasing externality in locus of control, 1960–2002. *Personality and Social Psychology Review*, *8*, 308–319.