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Research Report

Increases in Positive Self-Views Among High School Students

Birth-Cohort Changes in Anticipated Performance, Self-Satisfaction, Self-Liking, and Self-Competence

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ABSTRACT—*Previous research has produced contradictory findings on generational change in positive self-views. We examined 13 items measuring self-views in the Monitoring the Future study, a large national study of high school students conducted between 1975 and 2006 (in this analysis, n s between 4,698 and 29,673). Relative to high school students in the 1970s, those in 2006 were more likely to predict that they would be “very good” spouses, parents, and workers; were more satisfied with themselves; and scored higher on self-esteem items measuring self-liking. The 2006 students also reported earning higher grades and being more intelligent. However, 2006 students scored lower on two self-esteem items measuring self-competence than did students in 1975. These results suggest that there has been a small increase in positive self-views across the generations, but that it has not been accompanied by an increase in general self-competence.*

There has recently been much debate about the psychological makeup of today’s young people. Are they increasingly positive, and even narcissistic, in their self-views, deserving the label “Generation Me” (Twenge, 2006; Twenge, Konrath, Foster, Campbell, & Bushman, 2008), or is this claim unsupported by evidence from other sources (Trzesniewski, Donnellan, & Robins, 2008a, 2008b)? The debate began with a number of studies, primarily of college students, that found increases in traits related to positive self-views including self-esteem (Twenge & Campbell, 2001), narcissism (Roberts & Helson, 1997; Twenge et al., 2008), agentic traits (Twenge, 1997), and assertiveness (Twenge, 2001) over time. These findings were

consistent with several theories suggesting an increasing emphasis on the individual self in Western nations (e.g., Baumeister, 1987; Fukuyama, 1999). Recently, however, two other studies found no changes in self-enhancement (measured using the residual between self-reported intelligence and *self-reported* grades, an unusual measure) or in trait self-esteem among a nationwide sample of high school students between the 1970s and the present (Trzesniewski et al., 2008a, 2008b). Consistent with the self-esteem findings of Trzesniewski et al., Twenge and Campbell’s (2001) cross-temporal meta-analysis also found no increases in high school students’ self-esteem (although it did find increases for college students and children).

What might explain this discrepancy?¹ It is possible that college students have shown generational change, but the less selective population of high school students has not. However, several of the previous studies confirmed the generational change in self-esteem in samples of children (Twenge & Campbell, 2001) and a generational change in assertiveness among high school students (Twenge, 2001). Still, it is possible that these meta-analyses were based on nonrandom samples of the population that might be biased in some undetermined way. The second possibility is that generational change operates differently among high school students as an age group. Perhaps the social and academic pressures of high school suppressed the generational increase in positive self-views that appeared among college students and children. The third possibility is

¹Trzesniewski et al. (2008a) incorrectly stated that their results may have differed from ours (Twenge et al., 2008) because cross-temporal meta-analysis commits the ecological fallacy, in which effect sizes are exaggerated when the standard deviation is derived from samples of means (which vary less) rather than samples of individuals (which vary more). However, cross-temporal meta-analysis uses the standard deviation from samples of individuals to compute the effect size and thus does *not* commit the ecological fallacy (for a more detailed discussion, see Twenge et al., 2008, and Twenge, Zhang, & Im, 2004). Thus, the ecological fallacy cannot be the reason why the results of the two studies differed.

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that some positive self-views have increased among high school students, but previous studies did not examine the totality of the data.

Here, we take a closer look at positive self-views among high school students using a series of items from the large Monitoring the Future (MTF) study, an ongoing study that began in 1975. The most recent available data are from 2006.

METHOD

MTF (Johnston, Bachman, & O'Malley, 2006) samples high schools across the United States representing a cross-section of the U.S. population (see <http://www.monitoringthefuture.org>). The participation rate of schools is between 66% and 80%, and the student participation rate is between 79% and 83% (Johnston et al., 2006). About 15,000 students are sampled each year. The sample is divided into subsamples of about 2,500 people, and each subsample is asked a different set of questions. During some years for some questions (e.g., the self-esteem items in 2006), questions are asked of several subgroups, leading to a larger sample size for those questions. Other questions are asked of the entire sample (e.g., self-reported high school grades).

We identified 13 questions in the MTF data set measuring self-views. Three questions ask students to predict their future performance in important adult roles: "These next questions ask you to guess how well you might do in several different situations. How good do you think you would be . . . As a husband or wife? As a parent? As a worker on a job?" These items are answered on a scale from 1 to 5 (1 = *poor*, 2 = *not so good*, 3 = *fairly good*, 4 = *good*, and 5 = *very good*). We excluded the responses of students choosing *don't know* (around 10% of the sample for the first two questions and 2% on the third).

Another question on self-views appears in a series of items about how satisfied students are with various aspects of their lives: "The next questions ask how satisfied or dissatisfied you are with several aspects of your life. How satisfied are you with . . ." The eighth item on the list is "Yourself." This item was answered on a scale from 1 to 7 (1 = *completely dissatisfied*, 4 = *neutral*, and 7 = *completely satisfied*).

We examined the six questions measuring self-esteem, which are modified versions of 6 of the 10 items on the Rosenberg Self-Esteem scale (RSE; Rosenberg, 1965). Although Trzesniewski et al. (2008b) analyzed changes in these items as a single scale in the MTF data set, they did not report changes in individual items or in the more specific factors of self-esteem. However, it is possible that factors within the scale have changed in different ways. The six RSE items in the MTF data set are evenly split between two factors identified by Tatarodi and Milne (2002): self-liking and self-competence. Three RSE items measure self-liking, described by Tatarodi and Milne as "more subjective in orientation, highlighting the extent to which one is happy with and accepting of oneself, justifiably or not" (p. 449): "I take a positive attitude toward myself," "On the whole, I'm satisfied

with myself," and "Sometimes I think that I am no good at all" (reverse-scored). Three other items measure self-competence, which Tatarodi and Milne argue "invite assessment of qualities [and] orient the respondent toward objective self-assessment" (pp. 448–449): "I feel I am a person of worth, on an equal plane with others," "I am able to do things as well as most other people," and "I do not have much to be proud of" (reverse-scored).

Three questions tapped grades and intelligence. "How intelligent do you think you are compared with others your age?" and "Compared with others your age throughout the country, how do you rate yourself on school ability?" were rated on a 7-point scale (1 = *far below average*, 4 = *average*, 7 = *far above average*). "Which of the following best describes your average grade so far in high school?" was rated on a 9-point scale ranging from 1 (*D, 69 or below*) to 9 (*A, 93–100*).

For each question, we compared the responses of high school students in the first and last year of data available. The most recent year of data for every question was 2006. The first year in which questions were asked differed. For most, it was 1975. The exceptions are the three questions on grades and intelligence, which first had valid data in 1976, and the two reverse-scored items from the RSE, which did not appear on the questionnaire until 1977.

RESULTS

Prediction of Future Performance

Recent high school students were significantly more confident about their future performance as spouses, parents, and workers than were high school students in 1975. In 1975, 36.7% of high school students predicted that they would be "very good" spouses, but by 2006, 56.4% chose this highest response. This increase of 19.7 percentage points means that 54% more 2006 students than 1975 students predicted they would be "very good" (19.7/36.7 = 0.54). Over this time, the modal response shifted from "good" to "very good." Similarly, 35.6% predicted they would be "very good" parents in 1975, compared with 54.4% in 2006. Thus, about one out of three high school students in 1975 predicted they would be "very good" spouses and parents, but by 2006, one out of two students predicted this outcome. Recent high school students were also more confident that they would be good workers. In 1975, 48.8% predicted they would be "very good" workers, which increased to 64.7% in 2006. Whereas one out of two students in 1975 predicted they would be "very good" workers, two out of three students in 2006 predicted elevated performance at their jobs (see Table 1 for means, standard deviations, *zs*, and *ds* for all items).

Satisfaction With Self

High school students in 2006 were more self-satisfied than students in the 1970s. In 1975, 67.4% of respondents said they were satisfied (choosing a 5, 6, or 7 on the 7-point scale); in

TABLE 1
Generational Changes in High School Students' Self-Views

Item	Mean score		<i>d</i>	<i>n</i>		<i>Z</i>
	1970s	2006		1970s	2006	
Prediction of future performance						
Good as a husband or wife	4.21 (0.75)	4.40 (0.75)	0.24	2,611	2,177	8.35**
Good as a parent	4.10 (0.85)	4.33 (0.91)	0.26	2,549	2,149	8.89**
Good as a worker on a job	4.41 (0.67)	4.56 (0.70)	0.22	2,844	2,241	7.73**
Self-satisfaction						
Satisfied with yourself	5.26 (1.57)	5.45 (1.51)	0.12	3,008	2,433	4.53**
Self-liking						
I take a positive attitude toward myself	3.93 (1.01)	4.00 (1.02)	0.07	2,779	6,803	3.07*
On the whole, I'm satisfied with myself	3.99 (1.03)	4.05 (1.07)	0.06	2,746	6,736	3.07*
Sometimes I think that I am no good at all (reverse-scored)	3.55 (1.37)	3.76 (1.29)	0.16	2,830	6,718	7.15**
Self-competence						
I feel I am a person of worth, on an equal plane with others	4.17 (0.92)	4.08 (1.03)	-0.09	2,765	6,786	4.19**
I am able to do things as well as most other people	4.23 (0.81)	4.20 (0.90)	-0.03	2,765	6,775	1.59
I do not have much to be proud of (reverse-scored)	4.04 (1.15)	3.96 (1.17)	-0.07	2,843	6,723	3.09*
Grades and intelligence						
Which of the following best describes your average grade so far in high school? 1 (<i>D</i>) to 9 (<i>A</i>)	5.78 (1.89)	6.34 (1.97)	0.29	15,745	13,928	24.91**
How intelligent do you think you are compared with others your age?	4.84 (1.13)	4.96 (1.19)	0.10	15,661	13,979	5.99**
Compared with others your age throughout the country, how do you rate yourself on school ability?	4.84 (1.13)	4.90 (1.19)	0.05	15,400	13,974	4.42**

Note. Standard deviations are given in parentheses.

* $p < .01$. ** $p < .001$.

2006, 72.8% of respondents said they were satisfied. In addition, more 2006 students said they were “completely satisfied” with themselves (choosing a 7 on the 7-point scale); 27.1% of respondents in 1975 said they were “completely satisfied,” compared with 30.1% of respondents in 2006.

Self-Liking and Self-Competence

High school students in 2006 scored higher than 1970s students on the three RSE items measuring self-liking, but lower on two measuring self-competence (a third measuring self-competence did not show a significant change). When added together into composite scales of three items each, self-liking increased $d = 0.12$, and self-competence decreased $d = -0.08$. Thus, the discrepancy between self-liking and self-competence has increased, $d = 0.20$.

Grades and Intelligence

High school students in 2006 reported earning significantly higher grades than did students in 1976. Twice as many 2006 high school students reported earning an A average in high school (15.6%, vs. 7.7% in 1976); there was also an increase in those who reported earning an A or A-minus average (32.8% vs. 18.3% in 1976). Smaller increases appeared in self-rated intelligence and school ability relative to peers.

DISCUSSION

In a large, nationally representative data set, high school students' positive self-views increased over the generations. The majority of high school students now anticipate being “very good” at important adult roles, compared with students in the 1970s, who more commonly anticipated being “good.” Likewise, recent high school students are more satisfied with themselves and score slightly higher on self-liking than did students in the 1970s. Recent high school students report making higher grades and believe that they are slightly more intelligent relative to peers than students did in the 1970s. However, there have been small declines in high school students' general ratings of self-competence.

The increases in positive self-views are consistent with analyses of high school students' expectations for their futures. Reynolds, Stewart, MacDonald, and Sischo (2006) compared high school seniors in 1976 and 2000 (also using the MTF data set) and concluded that young people's expectations were increasingly unrealistic. By 2000, more than 50% of high school seniors said they planned to earn a graduate degree (twice as many as in 1976), although less than 10% will likely reach that goal.

Although significant, these birth-cohort changes are smaller than those previously found for increases in positive self-views among children and college students (between $d = 0.40$ and $d =$

0.70 over a 30-year period; Twenge & Campbell, 2001; Twenge et al., 2008). The rate of change in the current analysis is also smaller than that found for other birth-cohort differences, such as IQ ($d = 0.62$ over a similar 30-year period; Flynn & Weiss, 2007). However, the changes in prediction of future performance (average $d = 0.24$) approach the effect size of the much-publicized obesity epidemic ($d = 0.31$ for changes in body mass index over a similar time period; Ogden, Fryar, Carroll, & Flegal, 2004). In addition, the smaller effect sizes here are similar to those found in two well-known health studies: one on the effect of secondhand smoke on lung cancer in North America ($d = 0.08$; Taylor, Najafi, & Dobson, 2007), and one on the effect of daily aspirin on heart attacks ($d = 0.11$; Yerman, Gan, & Sin, 2007). The small average effects at the mean level on positive self-views produced larger changes at the top of the distribution (e.g., 50% more students rating themselves as “very good”).

It is also notable that 10 of the 13 items measuring positive self-views showed statistically significant increases, and only 2 items showed decreases. Thus, despite our failure to find changes in high school students’ self-esteem in past research (Twenge & Campbell, 2001), the preponderance of the evidence now shows an increase in the positive self-views of high school students. That said, the small decreases in self-views on the self-competence items should not be overlooked. Overall, high school students reported an increase in general self-liking, but a small drop (or at the very least not an increase) in items that, according to Tafarodi and Milne (2002), “invite assessment of qualities.” However, students report higher competence in the area of intelligence, perhaps because they have received increasingly positive feedback in this area in the form of higher grades. Their positive assessment in this arena, however, does not seem to have carried over to a greater feeling of general self-competence.

Why might young people express greater confidence in their future performance, like themselves a little more, and believe that they are a little more intelligent, but not report increased feelings of overall competence? One possibility suggested by Baumeister, Campbell, Krueger, and Vohs (2003) is that the increasing emphasis on self-esteem and grade inflation in schools could produce students who do not have to think of themselves as competent in order to like themselves; this is consistent with what we found. Whether or not this is a positive change should be explored. Future research should also attempt to identify the cultural trends behind these shifts.

However, these data should not be overinterpreted. First, the items we measured are not necessarily indicative of self-enhancement. We have used the term *positive self-views* because we have no grounds for assessing the accuracy of these self-reports. The increase in self-reported grades is a clear example of this: This change could mean that more recent generations exaggerate their grades more, that teachers have inflated grades, that academic performance has actually improved, or all three. All of these possibilities are consistent with the idea that young

people feel positively about themselves and are increasingly encouraged to do so by adults. Encouragement by adults seems especially likely with recent students getting better grades while doing fewer hours of homework than their 1970s counterparts (Twenge, in press). Without knowing actual performance, however, it is impossible to determine self-enhancement from these data. Likewise, for the self-esteem items, there is no objective metric for “worth” or “goodness,” so determining self-enhancement is not possible.

We also cannot be sure whether the questions mean the same thing to respondents now as they did 30 years ago. This is a limitation shared by all survey researchers; for example, those examining cross-cultural differences cannot be sure whether the questions mean the same thing in different cultures. For example, being a “very good” worker might mean something different now than it did in the 1970s. Although this is a limitation, change in interpretation is also an indicator of change over time in attitudes. If the meaning of work is now different, that is also an interesting birth-cohort shift. Future research should explore whether there have been generational changes in work attitudes. In general, future research may tell researchers whether young people are less likely to feel that they must be above average in competence to feel satisfied with themselves and whether they have a less demanding image of work roles, and other social roles, than they once did.

In sum, the MTF data set shows an overall pattern of increased positive self-views among high school students between the mid-1970s and 2006. This increase, however, has not extended to self-esteem items tapping self-competence. This mixed pattern of results potentially explains the differing conclusions about changes in self-views that have appeared in past research.

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