

Can Aptitude Tests Really Predict Your Performance?

June 16, 2011

Colleges, employers, and the military all use aptitude tests to predict how well someone might do. In recent years, some critics of these tests have said there isn't much difference in performance above a certain level—that, above a certain threshold, everyone is more or less the same. Now, in a new study, which will be published in an upcoming issue of *Psychological Science*, a journal of the Association for Psychological Science, the authors find that this isn't true. Instead, the higher your score, the better you perform later.

But some critics have said that the tests aren't much use at the top end of the scale. In his 2008 book "Outliers," for example, Malcolm Gladwell argues that tests can't distinguish between the best people. Other people have suggested that choosing people for scholarships or jobs by starting at the top of a list of test scores doesn't make sense, and instead it would be better to pick randomly among people who score in the top half or third.

Many studies have found that aptitude tests are pretty useful for predicting how people will do later, says Paul Sackett, of the University of Minnesota. He co-wrote the article with Justin Arneson and Adam Beatty. "There is research that shows sort of the expected pattern: People with higher scores end up doing better," Sackett says.

Sackett and his colleagues looked at four large studies of people who have taken aptitude tests. For one, the College Board collected SAT scores for all the students entering 110 colleges in 2006, and also their freshman GPA. That study included more than 150,000 people. In another, the Army collected scores from people who took the Armed Services Vocational Aptitude Battery, then later evaluated more than 5000 of them on how well they did their jobs. Two other data sets contained students' performance on tests in high school and their grades in college.

The higher the test scores, the better the test takers performed later. That was true of all the data sets and even at the very top end of the scale. "If anything, the relationship seems to get even stronger at the higher end," Sackett says. "If you're going to put students in rank order to give, say, a scholarship, is it unfair to prefer somebody in the 99th percentile to somebody in the 98th percentile?" Absolutely not, he concludes: The data show that the higher the score, the better the person performs later.

Of course, that is only true for the average; there are always some people who do terribly on a test, then excel later. But, on the whole, Sackett says, this makes sense—if a test is well designed, then it only asks questions that targets useful skills. "If all the items on the test are important, wouldn't somebody who can answer 100 percent of the items do better than somebody who can only do 80 percent or 50 percent?"