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The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objects are to further the work of scientists, to facilitate cooperation among them, to improve the effectiveness of science in the promotion of human welfare, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.

Educational Tests

The standardized educational or psychological tests that are widely used to aid in selecting, classifying, assigning, or promoting students, employees, and military personnel have been the target of recent attacks in books, magazines, the daily press, and even in Congress. The target is wrong, for in attacking the tests, critics divert attention from the fault that lies with ill-informed or incompetent users. The tests themselves are merely tools, with characteristics that can be measured with reasonable precision under specified conditions. Whether the results will be valuable, meaningless, or even misleading depends partly upon the tool itself but largely upon the user.

All informed predictions of future performance are based upon some knowledge of relevant past performance: school grades, research productivity, sales records, batting averages, or whatever is appropriate. How well the predictions will be validated by later performance depends upon the amount, reliability, and appropriateness of the information used and on the skill and wisdom with which it is interpreted. Anyone who keeps careful score knows that the information available is always incomplete and that the predictions are always subject to error.

Standardized tests should be considered in this context. They provide a quick, objective method of getting some kinds of information about what a person has learned, the skills he has developed, or the kind of person he is. The information so obtained has, qualitatively, the same advantages and shortcomings as other kinds of information. Whether to use tests, other kinds of information, or both in a particular situation depends, therefore, upon the empirical evidence concerning comparative validity, and upon such factors as cost and availability.

In general, the tests work most effectively when the traits or qualities to be measured can be most precisely defined (for example, ability to do well in a particular course or training program) and least effectively when what is to be measured or predicted cannot be well defined (for example, personality or creativity). Properly used, they provide a rapid means of getting comparable information about many people. Sometimes they identify students whose high potential has not been previously recognized. But there are many things they do not do. For example, they do not compensate for gross social inequality, and thus do not tell how able an underprivileged youngster might have been had he grown up under more favorable circumstances.

Professionals in the business and the conscientious publishers know the limitations as well as the values. They write these things into test manuals and in critiques of available tests. But they have no jurisdiction over users; an educational test can be administered by almost anyone, whether he knows how to interpret it or not. Nor can the difficulty be controlled by limiting sales to qualified users; some attempts to do so have been countered by restraint-of-trade suits.

In the long run it may be possible to establish better controls or to require higher qualifications. But in the meantime, unhappily, the demonstrated value of these tests under many circumstances has given them a popularity that has led to considerable misuse. Also unhappily, justifiable criticism of the misuse now threatens to hamper proper use. Business and government can probably look after themselves. But school guidance and selection programs are being attacked for using a valuable tool, because some of the users are unskilled.—D.W.