

*But You Have to Know How to Tell Time*¹

True enough, there is a table of age equivalents of raw scores that goes from 0.5 years to 16.5 years! (It is for the total score on TOGA.) But does one have to be so naive as to use it? On how many 6-month-old examinees was it based? And if no children were tested below about the age of 5 years, as seems likely, how secure is an extrapolation stretching downward 4 or 5 years?

Age equivalents represent about as unsatisfactory an approach to an equal-unit scale as we have, even during the elementary school years. When extrapolated far beyond the ages or grades in which testing was done, they become arbitrary, insecure, and largely meaningless.

Note that it is the *scale of measurement* that is being questioned, not the validity of the raw scores. The fact that a child did not understand what he was supposed to do, and consequently omitted all or most of the items, could be quite predictive of his academic status at the time or even a year later. However, it would still be nonsense to say that his mental age was 0.5 or 1.0 or 2.0. And it is the scale of measurement that becomes crucial for the authors' argument.

Incidentally, information on the number of omitted items seems quite central to any understanding of the effects of the experimental treatment. If there is one thing that extra encouragement by a teacher might readily do, whether given before or during an examination, it would be to lead a pupil to take a shot at two or three more items, whether he knew the answers or not. When score is simply the number of items right, as it is on TOGA and many other tests, normal luck could then produce a measurable if not a substantial increment in average score. At all ages, one would wish to see data on number attempted as well as number correct.

In closing, let me express a very real interest in the notion of the "self-fulfilling prophecy." I would expect the phenomenon to appear most clearly, to the extent that it is in fact effective, in those areas that are most directly teacher-based and school-dependent, such as learning to read, to write and to cipher. Perhaps others can learn from *Pygmalion's* shortcomings, and carry out research on these problems that is psychometrically and experimentally adequate.

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