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Computerized Psychological Testing

Thousands of relatively low-cost microcomputers and associated software are being purchased for use in psychological testing by employers, physicians, psychologists, social workers, counselors, nurse practitioners, and other licensed health care providers. Since the results of psychological tests can affect decisions concerning employment, the handling of handicapped young adults in school, and diagnostic functions such as estimating deficits associated with brain damage, the quality of these tests is a legitimate matter for general concern.

There is a danger that wholesale use of automated tests by people without a knowledge of their limitations will be a disservice to the public. Compounding this danger, the tests have a spurious appearance of objectivity and infallibility as a halo effect from the computer, and their ease of use may cause them to be more widely employed than are current tests.

Typically, computerized psychological tests are administered with the subject unattended and unsupervised. Following a sheet of written instructions, the subject punches in answers to a battery of psychologically oriented questions. In seconds, the practitioner receives a computer printout of up to 50 pages of valid-sounding narrative statements describing the subject's behavioral traits, personality disposition, temperament, vocational interests, intellectual abilities, potential for suicide or drug addiction, medical-legal-psychological diagnosis, and a host of other personal details.

It is critically important that the legions of users of such automated tests be reminded forthrightly that the predictive value of the tests, technically called their validity, remains to be scientifically appraised. To date, there is no evidence published in peer-reviewed journals that one full page of the narrative descriptions is valid.

Even when carried out by a Board-certified specialist in psychology, the interpretation of the products of such psychological assessment is today not a highly objective activity. Rather, it is at a stage of development comparable to the earliest stages of use of laboratory information for making medical diagnoses. Specifically, it is critically dependent on the education, training, and experience of a skilled professional. Psychological testing carried out by a console is no more synonymous with psychological assessment than is the printout from a laboratory computer synonymous with professional assessment in clinical medicine. Fully trained health practitioners cognizant of the limitations of such tests and capable of correlating the test results with other information from the person's history, will find them useful. In this setting, they may be likened to laboratory data in the hands of a good surgeon, internist, accountant, or stress engineer. But in the hands of an untutored and unqualified user—whether psychologist, physician, elementary school teacher, college admissions officer, personnel administrator, or social worker—such test data can be harmful. In the right hands, a scalpel can be an exquisite extension of the fingers of a surgeon; in the wrong hands, an instrument for potential damage.

Automated testing was initiated by responsible psychologists for use by fully informed and sophisticated psychologist colleagues, as well as by professional-level students in psychology and medicine who are being trained to use such data responsibly. Until more research establishes that the validity of application of these computer products by a health practitioner is not dependent on the practitioner's experience and training in psychometric science, such automated consultations should be restricted to these qualified user groups.* My experience as an expert witness leaves me in no doubt that a flood of litigation involving unqualified users of the products of this new technology is just around the corner.—JOSEPH D. MATARAZZO, *Oregon Health Sciences University, Portland, Oregon 97201*

*It is possible that in the future a good computer test might yield better results than an appraisal by an untrained human evaluator, but at present the ease of computer tests enhances the danger of their misuse.