

THE TEACHING OF EVOLUTION IN NORTH CAROLINA

PERSONS interested in science may be interested to know that Representative Poole introduced the following bill (resolution) for the suppression of the teaching of either the Darwinian or any other evolutionary hypothesis as a fact:

Resolved by the House of Representatives, the Senate concurring, that it is the sense of the General Assembly of North Carolina that it is injurious to the welfare of the people of North Carolina for any official or teacher paid wholly or in part by taxation to teach or permit to be taught as a fact either Darwinism or any other evolutionary hypothesis that links men in blood relationship with any lower form of life.

This bill was referred to the Education Committee which had a hearing and voted to report it unfavorably. A minority report was brought to the floor of the house which was defeated by a vote of 64 to 47.

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SCIENTIFIC BOOKS

The Mental Growth of the Child; A Psychological Outline of Normal Development from Birth to the Sixth Year, Including a System of Developmental Diagnosis, BY ARNOLD GESELL, M.D., Ph.D. Macmillan, 1925, pp. 447.

DR. GESELL has accomplished a pioneer and monumental piece of work. The reviewer feels indeed that "The Mental Growth of the Child" is easily the most important book that has ever been written on the early mental and psychical development of children. Its purpose is primarily to serve as a handbook of clinical diagnosis. The procedure involves a combination of test and observational methods. Developmental norms have been established for motor development, language development, adaptive behavior and personal-social behavior. These norms are frankly tentative and sketchy, but they may be used for the assignment of rough developmental age scores to subjects who have been examined.

For motor development there are (if the reviewer has counted correctly) 34 tests; for language development, 24; for adaptive behavior, 58; for personal-social behavior, 39. Many of these are new and most ingenious. All have been applied to 50 children of each of the following age groups: 4 months, 6 months, 9 months, 12 months, 18 months, 2 years, 3 years and 5 years. The subjects were selected so

as to secure as nearly as possible representative groups. The labor involved was enormous and of course required several years for its completion.

Fortunately it was not necessary to give the entire list of 155 tests to each child. For use in clinical diagnosis the 155 tests are divided into ten groups, one for each of the age groups named above. This gives an average of some 15 or 16 tests for any given subject. In actual practice the number will be somewhat greater than this, as some preliminary exploration is necessary to ascertain which of the ten series of tests best applies to a given subject. The time required is 40 to 60 minutes. It will doubtless be a surprise to many to know that four-months infants can withstand an examination so prolonged. That they can do so is due to the simplicity and informality of the tests.

The author does not intend that his method shall be used as a psychometric tool, in the strict sense. Quantitative scores are not given on the separate parts of the examination, but simply an A, B or C to indicate roughly the quality of the performance. The assignment of such qualitative scores is frankly a subjective procedure. Usually the author sums up the results of an examination in terms of a "developmental age," although it is not made clear just how the individual qualitative scores are summed. The author repeatedly insists that it must not be made a matter of simple addition. As a clinician he is very skeptical about the value of numerical scores of the usual sort.

Unquestionably much can be said for this point of view. Even in work with older subjects numerical scores can easily be abused, and in the examination of infants this danger is doubtless a very serious one. The reviewer feels, however, that the position which the author has taken on this point detracts from the value of his methods for both practical and scientific use. If a developmental age score is to be assigned at all, it ought to be the most accurate one that the data at hand make possible. Scores in terms of "A," "B" or "C" are certain to be given widely different meanings by equally competent examiners. Uniformity of procedure in giving the tests is also rendered difficult in some cases by lack of explicitness in the directions. No attempt is made to establish the reliability of the various tests or their exact diagnostic significance (validity). Statistical results are not given; in a majority of cases not even the percentages of children "passing" a given test.

To the reviewer it seems that in steering so clear of psychometric technique, the author has sacrificed much of the value of his data. For example, the