

PSYCHOLOGY

Chairman: H. H. REMMERS, Purdue University

Professor W. N. Kellogg, Indiana University, was elected chairman of the section for 1945.

An harmonic analysis study of hoarse and non-hoarse voice quality.

DAVID T. HERMAN, Indiana University.—The differences in harmonic energy distributions of the vowel "o" (as in pot) of fifteen university students classed subjectively as having hoarse voices and fifteen classed as having non-hoarse voices have been studied. Oscillographic recordings of the vowel of each subject and harmonic analyses of a single wave of each subject were made. Characteristic frequency regions (CFR) for the vowel of the male subjects were found as 630 to 880 dv. and 980 to 1400 dv.; for female subjects, as 800 to 1140 dv. and 1980 to 2600 dv. As groups both the male and female hoarse subjects showed greater energy outside the CFR than male and female non-hoarse subjects. In almost all subjects the fundamental was found to be a weak partial. Only in the female hoarse group was the fundamental relatively strong. The hoarse groups, on the average, showed greater energy in the first three partials. Female hoarse subjects showed greater energy in the first three partials than female non-hoarse subjects, with the fundamental for the hoarse being considerably stronger. Male hoarse subjects were slightly weaker in the fundamental than male non-hoarse subjects, but were stronger in the second, third and fourth partials. A simulated hoarse quality vowel spoken by a single subject showed the usual CFR, but the total composition of the vowel resembled neither that found in the naturally hoarse voice nor the non-hoarse vowel of the same subject.

A study of the ability of high school pupils to recognize and recommend principles of behavior development in emotionally-toned situations.

ALMA LONG, Purdue University.—The problem was to discover the interest and ability of youths to deal with matters having great concern to themselves and for which some guidance might be needed. It was believed that such a study would reveal some pertinent general trends in the thinking about and feeling toward general and some specific problems which are commonly experienced by adolescents and also those which are exaggerated by the stress of wartime.

A large number of brief descriptions of problems having a definite emotional tone, which had been brought to high school teachers during the preceding year (1943) were classified and studied to find indication of the psychological needs which they represented. From these, a series of "situations" which might have been commonly experienced by high school pupils was prepared for response by such youths. With each situation, there was a brief description of the psychological principle involved, and seven approaches to the problem involved. Of the seven,

four were agreed to be good methods, two were of negative value and one was neutral. The pupils were asked to select the best two and the poorest one of the methods. Items of personal information about the individuals who took the test provided many classifications for comparison of the choices made.

From these detailed analyses of 2,365 papers received from pupils in 36 schools in Indiana, ranging from 11 to 18 years in age and in grades seven to twelve, one-third of whom were boys, three types of findings resulted: 1. Evidence of trends which are common to very large groups, related to common problems, in which the widely scattered individuals expressed their endorsement of and demand for responsibilities which are suited to their abilities and interest, need for opportunities to assume their place in a responsible and responsive group and suitable practice in the training needed; recognition of the fact that visible behavior is often very different from the feelings which underlie it; and that attitudes toward people change upon better acquaintance.

2. Significant differences in choices made were related to age and sex, level of intelligence, quality of the home environment of the child, personality characteristics of the individual noted in the records of the individual and his place among members of his social group, and with reference to his known behavior history. There were also specific differences in the ease with which relationships were seen between psychological principles and their counterparts in behavior. These latter outline some areas in which further instruction could well be given.

3. Evidence of the ability of high school children of all ages to understand and to apply many important psychological concepts to the interpretation of emotional behavior, and also of their recognition of the values accruing to themselves from better understanding of human behavior.

The wide distribution of salient responses among those of the entire group point out that eleven years is certainly not the lowest age level at which important learnings about human behavior occur, and that many attitudes have already formed either for or against the most desirable social adjustment of young people. Comparable group responses indicate some fundamental differences in the views and practices of the sexes, some traits which are common to both, but which are subject to modification with growth, some which are related to advantages of intelligence, and some which result from the quality of home environment. They also indicate that the casual brushes of a youth among those of his own age level are not sufficient to ensure important learnings without some guidance and instruction, and that of all those general influences which were considered in the study, the benefits of membership in a superior home and family group was most productive of the specific understandings which contribute to fine relationships among people.

A new set of music tests. ROBERT W. LUNDIN, Indiana University.—The paper contains a description of five musical ability tests devised by the author. They are designed to measure such abilities as are commonly taught in music theory classes. They do not purport to meas-

ure any inherited traits since the author questions whether musical ability is inherited. From a statistical analysis of the tests which were given to a group of music students and an unselected group of college students, the author believes that if properly revised the battery may be useful at getting at what is commonly known in music circles as "musicality."

Preservation in normal speakers and stutterers. HARRIS HILL, Indiana University.—This study partially tested the hypothesis that perseveration of action occurs if well-learned serial behavior is interrupted. The testing was accomplished by recording the behavior which resulted from the blocking of a secondarily-automatic sequence of movements involving paired musculatures. Normal speaking and stuttering subjects learned three movements in the form of serial activity to a point where little observational control was necessary. During the last test period, mechanical blocking of the sequence of movements was introduced at various intervals and in specific order. The general types of variable behavior studied were: Repetitions of movements, prolongations of movements, breathing abnormalities, reactions to anticipation, and omissions of movements. Twenty-one forms of variable behavior were measured in all. Among other reactions found, perseveration was present in the records of all subjects of both groups. Differences between normal speakers and stutterers mainly took the form of slower reactions for the stutterers (i.e. prolongation of movements), and the apparent inability of 50 per cent of the stutterers tested as against 20 per cent of the normal speakers tested to achieve the speed required in this experiment.