

PSYCHOLOGY

Chairman: S. M. BERGER, Indiana University
WILLIAM MARTIN, Purdue University, was elected chairman for 1963

ABSTRACTS

Watson, Jennings, and the Biological Origins of Behaviorism. DONALD D. JENSEN, Indiana University.—There is evidence that J. B. Watson, who is usually considered to have founded psychological behaviorism in 1914, was strongly influenced by H. S. Jennings, a biologist who published extensively on the behavior of lower organisms from 1896 to 1908. Jennings held that "no statement concerning consciousness in animals is open to verification or refutation by observation and experiment.—All that experiment and observation can do is show us whether the behavior of lower organisms is objectively similar to the behavior that in man is accompanied by consciousness." In 1905 and 1907 Watson criticized Jennings' approach from a definitely introspectionistic point of view. In 1908 Watson moved to Johns Hopkins where Jennings was, met and took courses under Jennings, and collaborated with K. S. Lashley who was completing his dissertation on genetics under Jennings. In 1913 and 1914, Watson's first behavioristic works appeared, without, however, acknowledgment of association with or debt to Jennings. It seems evident that psychological behaviorism is simply an extension to man and higher animals of a methodological point of view developed by Jennings in the behavior of lower organisms.

Transfer of Learning without Verbal Understanding. JULIUS SASSENATH, Indiana University.—Last year at the IAS meeting experimental evidence for the automatic action of verbal reinforcers was presented. The present paper offers more recent corroborating evidence on this general issue. The major purpose of the present experiment is to determine whether a principle being learned without awareness (LWA) or without verbal understanding during a training period will facilitate learning a second principle during a transfer period. The major results indicate that groups which show LWA during training: (a) require fewer blocks of trials to learn the transfer principle and (b) show a larger number of correct responses during the transfer period than do the control groups. Presumably, then, LWA in training can influence the acquisition of a transfer task.

An Experimental Comparison of Graduate and Undergraduate Performance in Educational Psychology. ROBERT SNOGRASS, Purdue University.—A comparison was made of the average performances of graduate students with that of undergraduates in regular classes of educational psychology. The experiment was made during school years 60-61, 61-62, with 1,005 undergraduate and 250 students, with six separate classes at each of the two levels. Both graduates and undergraduates received identical instruction for certain topics. Objective test items covering this instruction were included in the regular tests

administered to both groups, and were scored separately. The means for both groups were compared. In on-campus classes, graduate performance was better ($CR = 2.0$). In summer classes there was no difference. In evening classes, undergraduate performance was better ($CR = 3.6$). Over-all the undergraduate was apparently better but statistically insignificant.

Vicarious Instigation, Conditioning, and Frequency of Apparent Shock to the Performer. SEYMOUR M. BERGER, Indiana University.—Observer responses to the apparent shock of someone else were measured on the pleasant-unpleasant scale of the semantic differential. Three groups of 14 observers each, watched a person apparently receive either 1, 5, or 9 shocks. Observers rated their own feelings as increasingly unpleasant as the number of shocks increased ($p < .05$); their ratings differed from control groups which observed no shocks ($p < .01$). Previous studies using the GSR found a decrease in observer arousal over trials. This investigation suggests an artifact of GSR adaptation in the previous studies. The findings do not support a conditioned emotional response explanation of vicarious instigation.

Programmed Tutoring of Elementary Reading. DOUGLAS G. ELLSON, Indiana University.—This paper reported preliminary results from six experiments utilizing a programmed learning technique based upon a paired associates method to teach reading vocabulary at the first grade level. Experimental subjects in all cases were retarded and normal children. Results obtained so far do not support the common belief that children with low IQ's form associations more slowly than normals. There are indications of other factors that contribute to the poor performance of retardates. The highest rate of vocabulary acquisition was found for retarded children with a reading background, the slowest for normal children during their first weeks in the first grade. The experiments also indicate that programmed teaching can be carried out by relatively untrained tutors including those labeled "retarded" and that programmed learning was most effective in combination with classroom teaching. Approximately ninety percent retention has been found in tests one month and one year after acquisition. In general the results of these experiments demonstrate the feasibility of effective teaching of reading vocabulary to retarded and normal children by programmed learning techniques.

Programmed Instruction in Beginning Reading. DONALD G. DOEHRING, Ph.D., Institute of Psychiatric Research, Indiana University Medical Center.—A preliminary investigation of programmed instruction in beginning reading has been completed. Reading material in the form of simple sentences, single words, and phonic sounds was systematically presented by means of a multiple-choice visual instructional device and tape-recorded auditory stimuli. A sight-reading program was administered to four normal and five mentally-retarded beginning readers, and a phonics program was administered to one of the normal children. Results suggest that the use of systematic instructional techniques may enable us to delineate a hierarchy of subordinate skills necessary for the development of reading behavior.