

## PSYCHOLOGY

Chairman: G. A. ZIRKLE, Hanover College

L. M. Baker, Purdue University, was elected chairman for 1952

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### ABSTRACTS

**Changes in personnel questionnaire responses as a function of instructions.** N. FRIEDMAN and E. J. MCCORMICK, Purdue University.—The purpose of the investigation was that of analyzing the stability of responses in various situations to items on the Personnel Questionnaire. The four parts of the test include items somewhat comparable to those on typical personality and interest questionnaires.

The test was administered to three groups of students in the following test-retest situations:

- A. Testing and retesting 40 students in a clinical situation.
- B. Testing 35 students in a clinical situation and two days later in a simulated job application situation.
- C. Testing 22 students in two different simulated job application situations.

Finally, the responses of students to items in one of the simulated job application situations were compared with those of actual applicants for the same job.

The results of the above three test-retest situations were as follows:

- A. All parts of the test but Part I (Personal Interests) demonstrated adequate reliability.
- B. Responses to approximately 50 per cent of the items were falsified. Part IV (Personal Beliefs) showed a significantly smaller per cent of falsified items than did the other parts.
- C. One third of the items were answered differently in the two simulated job application procedures; the differences were most marked for Part II (Work Preferences) and least marked for Part IV (Personal Beliefs).

Finally, it was found that students could accurately simulate the job application situation.

**Training and experience of high school teachers of psychology, together with teacher and pupil attitudes toward the course.** T. L. ENGLE, Indiana University, Fort Wayne Center.—Psychology is taught in 34 states but only nine states have specific licensing requirements for teachers of psychology. Questionnaires concerning training and experience were sent to 453 teachers of psychology. Replies were received

from 147 teachers in 26 states. Teachers in 97 schools in 24 states administered a rating scale to 2783 pupils.

The mean number of years of college training is 5.04 but the training is primarily in social science and education rather than in psychology, some teachers of psychology reporting no training in psychology.

No teachers limit their work to the teaching of psychology, the most common area for other teaching being the social sciences. Slightly over half serve as superintendents, principals, or directors of guidance.

Psychology is taught as a one-semester course in 64.8 per cent of the high schools, but 68.3 per cent of the teachers and 87.0 per cent of the pupils think it should be at least a two-semester course.

Both teachers and pupils rate psychology as contributing more than most subjects to meeting objectives of secondary education, the greatest contribution being to co-operation and family-life. Pupils in two-semester courses rate psychology higher in meeting objectives than do pupils in one-semester courses, the significance ratio for the difference being 8.15.

**An investigation into the effects of neutral wet pack therapy.**  
DAVID GOODENOUGH, Logansport State Hospital.—The reactions of one negro and fourteen white psychotic male patients to neutral-wet-pack hydrotherapy were studied intensively over a period of five months. Verbalizations, pulse rate, breathing rate and general activity were recorded while patients underwent treatment. Group comparisons were made to determine which factors were most important in the "sedative effectiveness" of this treatment. Ranked global activity as an overall measure, and pulse rate as a single index of activity, were treated statistically by analysis of variance procedures.

The difference in amount of mean activity between patients with favorable attitudes toward "hydro" and patients with unfavorable attitudes was statistically significant (at better than the one per cent level) no matter which variable was used in the analysis. Individual differences in the "sedative effectiveness" of neutral-wet-pack therapy were clearly indicated, greater variability in reaction being characteristic of those patients who had expressed a dislike for treatment. A consistent downward trend in pulse rate was apparent in patients with favorable attitudes, and this trend was shown to be adequately described by a parabolic curve.

There was no evidence of reliable differences in reaction between patients accustomed to pack and those who were experiencing this form of treatment for the first time. Nor was there a statistically significant difference discernible between the "sedative effectiveness" of wet-pack as opposed to dry-pack treatment. A slight, irregular, downward trend in pulse rate was noticeable in the wet-pack records of patients with favorable attitudes but trends, if they existed at all, were obscured in the dry-pack records. Suggestions for future research, in which the influence of factors such as attitude is more properly controlled, are offered.

**Drive intensity as a cue in discrimination training.** EDITH D. NEIMARK, Indiana University.—Hull has postulated that drive serves a dual function as stimulus and as a determiner of general activity. Several studies have been attempted to demonstrate the stimulus value of drive by establishing a discrimination based upon two qualitatively different drives, or upon two intensities of the same drive. The present study has attempted to demonstrate that stimulus intensity can function as a discriminative stimulus in a situation where all other stimuli are maintained constant. Two groups of seven animals each were trained to press a bar for water reinforcement in a standard Skinner box situation. The animals of Group A received continuous reinforcement for responses emitted after 22 hours of water deprivation; but were not reinforced for responding after 2 hours of deprivation. For Group B, conditions were reversed. The training series for both groups consisted of sixteen ten-minute periods of training under each drive condition. During the first three minutes of each training period, no responses were reinforced; after this test interval the discrimination training appropriate to the drive level was given. After training, each group received four ten-minute extinction periods under each drive level, varied in a random sequence. An analysis of rate of response for initial three minute intervals reveals significant differences between two drive levels in any one group; but it provides no clear-cut evidence of discrimination. Rate of response during extinction, however, indicates that a discrimination has been formed.

**Physiological correlates of a defense mechanism.** G. HUGH RUSSELL, Purdue University.—Experimental methods, along with laboratory instruments, were used in testing hypotheses derived from psychoanalytic theory concerning the interaction of a defense mechanism and the expression of anxiety. Two groups of experimental subjects were selected for testing on the basis of their achieving relatively high or low scores on measures of their need for the defense in question. Hypotheses were tested by comparing these groups on the measures of behavioral manifestation of the defense and anxiety present when the defense is threatened. No significant differences between groups were found on either of the measures. The data suggested an inverse relationship between the use of the defense and the arousal of anxiety for that group having the greater need for the defense. The usefulness of instrumental approaches in research on psychoanalytic theory is discussed and suggestions are made for future research.

**Alternation of responses as a function of hunger drive level in a two-choice maze situation.** MAX S. SCHOEFFLER and JAMES STRAUGHAN, Indiana University.—In 1934, Elliot demonstrated that rats tended toward greater stereotyping of behavior when they were under a greater degree of food deprivation. In his five choice problem, there was however no control over the time interval between choice and reinforcement. The present study was designed to investigate the alternation variable, when the time between choice and reward was kept constant for high and low deprivation groups.

Sixteen rats were randomly divided into two groups; one group being deprived of food for two hours, the other for 22 hours. Both groups were trained for 32 random forced trials, and were then allowed free choices for 51 trials which constituted the test runs. All trials were performed on a 16 inch runway, the end of which was partitioned into two compartments. In this way, the choice point was no more than two inches from the point of reinforcement. A 44 mg. food pellet was used as reinforcement on each run, both compartments being constantly available throughout the test trials.

An analysis of the mean per cent of alternation of the two groups, showed that the two groups differed at the five per cent level of significance, the 22 hour group alternating less than chance.

**The effect of angle of inclination upon alternation behavior in the rat.** EDWARD J. THWING and SIDNEY HELLYER, Indiana University.—Purpose: to test certain predictions from reactive inhibition theory with respect to alternation behavior.

First test period: Half the trials were given with the runways in a horizontal position and half with the runways leading from the choice point inclined at a 45 degree angle.

Second test period: Half the trials were given with one runway horizontal and the other inclined. For the other trials the conditions were reversed.

Results: First test period. No significant difference was found in frequency of alternation on the inclined as compared to the horizontal runways.

Second test period. There was a significant preference for the level as compared to the inclined runway.

Discussion: If we can assume more effort per unit time was necessary to traverse the inclined runways than the horizontal runways and if the concept of reactive inhibition accounts for alternation behavior, then we would predict a greater frequency of alternation when the runways were inclined. The results of this study do not confirm this prediction.