1933

Personal "Tempo" or Rhythm

Alvhh R. Lauer

Iowa State College

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A STUDY OF HANDEDNESS

C. Van Riper

Simultaneous writing of both hands on a variable angle board showed large differences in performance between thoroughly right and left handed groups, the non-dominant hand producing mirror-script or mirror-patterning. A measure of amount of laterality by means of the angle at which mirroring occurred was shown. A recheck of Jasper's work on the phi-phenomenon as a measure of laterality gave corroborative results. The use of the Japanese Illusion as an indication of laterality was shown to be invalid. Failure of the non-dominant hand to reverse at a sound signal when both were describing opposite circles was demonstrated.

State University of Iowa, Iowa City, Iowa.

A GENETIC STUDY OF REFLEX CONDUCTION RATE

Charles Hazard

A study was made of reflex conduction rates in individuals ranging in age from nine days to four years. The action current technique was used for recording conduction rates for the patellar tendon reflex. Average values found were 21, 30, 35, 40, 44, 45, 47, 49, and 49 meters per second for the age levels of 9 days, 6 months, 1 year, 18 months, 2 years, 30 months, 3 years, 42 months, and 4 years, respectively. These results seem to indicate that conduction rate depends primarily upon the maturation of the peripheral arc, and present a picture of the course of its functional development.

State University of Iowa, Iowa City, Iowa.

PERSONAL "TEMPO" OR RHYTHM

Alvih R. Lauer

While investigating the nature of integrated responses, the problem of personal "tempo" or rhythm was studied. Other investigators have reported results which are somewhat conflicting. This research differs from most others in that typical samplings of voluntary and involuntary response rates were compared.
One hundred thirty-two adult subjects were given tests of basic and habituated responses under controlled laboratory conditions. Reliability of the tests averaged + .80. The range of these coefficients was from + .51 to + .98 with most of them slightly above the mean.

Highly conventionalized response rates, as writing, reading, etc., were found to have higher reliability than the more variable types such as walking. Habituated responses show greater consistency in rate than do the more basic body rhythms.

Intercorrelations of 24 variables were calculated. Only about half of these concerned temporal relations. The mean intercorrelation of involuntary response rates was ± .08. About 50 per cent were negative and 50 per cent positive. Habituated rates gave a mean intercorrelation of ± .11. Eighty per cent of these coefficients were positive. Correlations between the two types of response rates yielded a mean r of ± .10 and were about equally divided between positive and negative.

Specific instances of quite high relationships were found. One example is an r of + .4512 between reading and writing rates. On the whole the coefficients are low, indicative of little, if any, relationship between specific response rates. Any tendency for bodily tempos to vary together, suggesting a speed factor, would seem to hold only for habituated response if at all. In this case it would seem to exist chiefly between similar response patterns.

The conclusions are assumed to hold only for the types of measurements made but are in general agreement with the facts known about neuromuscular activity in its relation to skill.

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COLOR SENSITIVITY AS A TEST OF FATIGUE
LEIGH C. DOUGLASS

Using the Cameron Tangimetric Campigraph four subjects were tested morning and evening to determine the size of the retinal fields for blue, red and green lights projected through an opaque screen. Morning and evening records were then compared to find the amount and character of the changes. Percentages of increase or decrease in the size of the fields were computed in terms of the distance along twelve radii from the fixation spot. It was found that the average percent of change in all measurements for all