10:30 AM 90-299


The localization of imagery functions was investigated using parietal and temporal E.E.G. alpha asymmetry measures. Right-handed males (N=10) were asked to carry out tasks requiring the generation and mental rotation of imagined block figures. Analysis of variance of alpha asymmetry measures revealed no evidence of lateralization of function. However, an across-subject correlational analysis did detect reliable associations between strategy preference, performance and EEG measures of right hemisphere activation.

10:59 PM 90-303


Anterior rhinometric observations of nasal airway were obtained for 48 subjects, aged 3 to 17 years, throughout a 5-hour period. Children younger than 7 years exhibited a pattern different from the reciprocally airflow pattern characteristic of adults. That is, airflow through the two nostrils was either equal or parallel (44%). Between the ages of 7 and 17 years, however, the adult pattern emerged such that reciprocality was increased. This nasal airflow pattern was evidenced in 60% of the children tested. Period length, however, was significantly shorter in 7- to 10-year-old children when compared to older children and adults.

11:10 AM 90-304


ADD children were compared to non ADD children on cognitive, neuropsychological and behavioral dimensions. When compared to non ADD children, ADD children demonstrated: (1) no significant difference on cognitive, intellectual and achievement measures, (2) significant differences on the neuropsychological measures, including the Wechsler Deterioration Index (WDI), the Bender, and a trend for the Benton test, (3) the ADD children demonstrated significantly less behavioral adaptation on 19 scales for the Back's Behavior Scales, (4) the ADD children did not exhibit EEG abnormalities. The results of this study suggest that ADD may have neuropsychological sequelae, persistent behavioral difficulties, and may benefit from cognitive retraining.

Sat. Morning, March 31: 10:10 AM-12:20 PM MUSIC PERCEPTION PHILADELPHIA SOUTH

10:10 AM 90-305

MODELING HUMAN PROFILE ANALYSIS WITH NEURAL NETWORKS: NUMBER AND DENSITY OF COMPONENTS. Happer, J. Howard, III, Jr. and Miller, MH. Catholic University of America.

One extensive profile analysis (spectral shape discrimination) experiment was simulated (Goren, Kidd, and Pacardi, 1982, J. Acoust. Soc. Am. 72(5), 639-643) using a simple, three-layer, feed-forward, parallel network. As in studies with human listeners, pairs of multilayer weights were tied in a uniform background level and the other with a tonal signal added in phase to the central component. Networks were trained to select the signal alternative in a 2AFC paradigm using the generalized delta rule with error propagation and were tested under various conditions. Background levels were varied randomly between and within trials. These results mimic previous findings with human listeners reported by Goren et al. This research demonstrates that it is possible to model sensory phenomena using 'frocler's simple perceptron connected to a massively parallel network.

10:30 AM 90-3

RIT IN ABSOLUTE PITCH IDENTIFICATION DIFFER FOR BLACK AND WHITE KEYS PITCHES. Annie Takeuchi and Stephen Revel. Johns Hopkins University.

Absolute pitch (AP) possessors but not non-AP possessors, too long to name black-key than white key pitches in a Same/Different pitch identification task using visual and auditory stimuli. The task remove bias for different key-pairs responses. Analysis suggests the black-white key may be due to differential familiarity of black vs. white-key pitches, familiarity which AP possessors are especially attuned.

10:50 AM 90-


In an intonation judgment task in which subjects decided whether a chord was in C or not the effect of a chord presented before a target chord was investigated. Reason to in C and non in C chords were faster when they were preceded by chords with close harmonic relationships to the targets compared to when they were preceded by harmonically distant chords. This priming effect was observed full magnitude even when the duration of the priming chord was only 10 ms. The magnitude of the priming effect did not change when delay between the onsets of the 50 ms gr and the target was varied within a range from 50 to 2500 ms.

11:10 AM 90-

EXPLORING THE PERCEPTION OF METRES IN SHORT MUSICAL RHYMES. Kerlinia G. Miller, City University of New York. Sponsor: Leon A. Scarbrough.

Our model of meter perception at the beginning of a piece of music was only note durations to develop a hierarchical representation of the meter, adding levels only warranted. The model was tested by comparing its predictions with those of 6 massively trained subjects. Stimuli were rhythms in which the final note fell in one of 7 positions, making consistent with consistent with the hypothesized metric levels. Subjects' ratings of the 'fit' of the final note with the initial part of the rhythm were consistent with the model's predictions.

11:30 AM 90-3


A previous study found that a 2/3 of a whole tone from a target note inhibits preference for the target. In the present study subjects heard 48 sequences of 6 tones, with the final note (target) for preference. Half of the intervals included an inhibitory prime, 2/3 of a whole tone from the the target. All trials included a disambiguous, which was either and 10% were whole tone from the inhibitory prime. As expected, disambiguation was found at an inhibitory-dissimilarity frequency