

by Nancy S. Anderson)—Previous field studies of telephone communication via satellite have used equipment with echo and or noise conditions as well as delays. The present study examined subjective ratings of particular aspects of conversations over telephones. Subjects conversed about topics or tasks at various delays ranging from 60 ms to 999 ms, rating each conversation. Ratings decreased as a function of delay and less structured tasks were rated lower.

9:25-9:45 (425)

Effects of Predictive Cues and Attributes in a Go/No-Go Paradigm. JEFF MILLER, *University of California, San Diego*, ROLAND SCHAEFFER, *University of Tübingen, Federal Republic of Germany*, & STEVEN HACKLEY, *University of Missouri*—In a Go/No-Go task, a precue produces faster responses when it predicts that the Go response is likely than when it predicts the No response is unlikely. Preliminary information (i.e., information obtained from an easily discriminable attribute of a single stimulus) produces analogous effects if it is discretely codable by the perceptual system. The results have implications for the question of whether response preparation can begin before stimulus recognition is finished.

9:50-10:05 (426)

Correspondence Between Stimulus and Response Locations in Spatial-Precuing Tasks. T. GILMOUR REEVE, *Auburn University*, ROBERT W. PROCTOR, *Purdue University*, & DANIEL J. WEEKS, *Auburn University*—Spacings of stimulus and response locations were manipulated factorially in a four-choice spatial-precuing task. For equally-spaced stimulus locations, separating the two leftmost and two rightmost response locations slowed responding overall. However, for separated stimulus locations, the spacing of response locations had no effect. The pattern of precuing benefits was affected by the spacing of stimulus locations but not by the spacing of response locations.

10:10-10:25 (427)

Physiological Consequences of Human Yawning. RONALD BAENNINGER & MONICA GRECO, *Temple University*—Physiological aspects of yawning were examined by measuring the electrodermal response, electromyogram and heart rate of 25 young adults before, during, and after a yawn. Subjects were instructed to think about yawning, and were monitored while they were alone. The patterns of data suggest that an important function of yawning may be to increase physiological arousal.

NEUROPSYCHOLOGY

Red Lacquer Room, Saturday Morning, 8:00-10:30

Chaired by Peter J. Lang, *University of Florida*

8:00-8:15 (428)

Neuropsychological Evidence for Components of Perceptual Organization. LYNN C. ROBERTSON, MARVIN LAMB, & ROBERT T. KNIGHT, *University of California, Davis*—Damage to one part of the brain can affect one cognitive operation without affecting another, a source of support for cognitive modularity. In examining Navon's global precedence model of perceptual organization using brain damaged patients we found that a reaction time advantage to global or local targets depended on the hemisphere involved but that interference from one level or the other did not. The degree of global or local advantage and interference were affected independently. Support for this independence was subsequently found in normals as well. These findings have implications for Navon's model of global precedence and for the value of neuropsychological investigations in formulating cognitive models.

8:20-8:30 (429)

Memorial Consequences of Mild Closed Head Injury. JAMES H. HOWARD, JR., *The Catholic University of America*, DARLENE V. HOWARD, *Georgetown University*, SHARON A. MUTTER, *The Catholic University of America*, & CHERI L. WIGGS, *Georgetown University*—Inability to concentrate and failures of memory often follow closed head injury (CHI). Graf & Schacter's (1985) procedure was used to investigate implicit and explicit memory for new associations for mild CHI patients (Glasgow Coma Scale 13-15; loss of consciousness < 20 minutes). Compared with matched and college control groups,

CHI patients showed no impairment for implicit memory, whereas their explicit memory was deficient. The results are discussed within the framework of automatic and controlled processing.

8:35-8:50 (430)

Separate Memory Systems: Selective Deficits in Aging and Alzheimer's Disease. DAVID B. MITCHELL, *Southern Methodist University*—Three classes of memory tasks were administered to younger adults, older adults, and patients with Alzheimer's disease. A mono-hierarchical tripartite memory model predicts selective and ordinal memory deficits. The data support this model: only episodic memory revealed a deficit in normal aging, whereas both episodic and semantic memory were adversely affected by Alzheimer's disease. Procedural memory performance was similar across all three subject groups.

8:55-9:10 (431)

Regional Cerebral Blood Flow and Episodic Memory Retrieval. ENDEL TULVING, *University of Toronto*, JARL RISBERG, & DAVID H. INGVAR, *University of Lund, Sweden*—Data are reported from a preliminary study comparing patterns of regional cerebral blood flow (rCBF) in normal healthy subjects silently thinking about personal episodes from the distant or recent past, or about impersonal old and recent historical facts. Gamma radiation from intravenously administered radioactive isotope of gold (Au^{199}) was simultaneously recorded from 254 cortical locations. Activation of cortical gray matter was relatively greater in the frontal and prefrontal regions during episodic than during semantic retrieval.

9:15-9:30 (432)

Interhemispheric Transmission Time (ITT) as a Function of Gender, Hand, and Finger. PATRIZIA BISACCHI, CARLO A. MARZI, & ROBERTO NICOLETTI, *University of Padua, Italy* (sponsored by Cesare Cornoldi)—The aim of the present series of experiments is to study whether transmission time varies as a function of the sex of the subjects and of the hand or the finger used for response. In keeping with the possibility of a larger splenium in females, the results obtained show a faster transmission time in females. In males there is evidence of a lesser degree of bilateral motor control for the ring and especially the little finger than for the other fingers. Finally, the right hand (in right-handed Ss) tends to yield a greater ipsi-contra difference than the left hand.

9:35-9:50 (433)

Brain Hemisphere Lateral Reversal of Time Information Associated with Foreperiod in Schizophrenia. SUCHOON S. MO, *University of Southern Colorado*—Schizophrenics and nonschizophrenics estimated the duration of a dark dot following an auditory warning signal presented to the left or to the right ear. The duration of the warning signal constituted foreperiod. Schizophrenics showed complete brain hemisphere lateral reversal of time expectancy associated with foreperiod, indicating that such reversal is a spatialized enantiomorph of temporality of cognition.

9:55-10:10 (434)

Laterality in Emotion and the Acoustic Startle Response. PETER J. LANG, MARGARET M. BRADLEY, & BRUCE N. CUTHBERT, *University of Florida*—Recent data suggest that the eyeblink response to an acoustic startle stimulus varies systematically with the emotional valence of a visual foreground. This startle probe methodology was used here to explore hypotheses concerning laterality and emotion. A unilateral presentation of an acoustic startle stimulus occurred in the context of a positive, neutral, or negative slide foreground. Eyeblink magnitude was most clearly modulated by slide valence when the startle was presented to the left ear.

10:15-10:25 (435)

Handedness and Spatial Ability. WALTER F. MCKEEVER, *Northern Arizona University*, DEBORAH A. RICH, *Bowling Green State University*, MICHAEL G. MURRAY, *Northern Arizona University*, & KAREN S. SEITZ, *Baywood Hospital*—The question of a spatial ability impairment in left handers has been addressed frequently but without consistency of findings. Various hypotheses suggest specific subgroups of left handers as having poorer spatial abilities than other left handers. We report data from a number of studies in our lab which indicate that left handers do less well than right handers on spatial tests, but none