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Title	Personality based on affective prosody: implications for speech therapy (Abstract)
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## J.T.H. YIP & T.M.C. LEE. Personality Based on Affective Prosody: Implications for Speech Therapy.

Affective prosody refers to the vocal quality of speech. In past research, it has been shown that patients with Parkinson's disease have difficulty producing affective prosody in their speech, and subsequently, seen as passive and less intelligent by other people. The purpose of this study is to identify relevant sets of acoustic parameters, personality traits, and emotion types that would affect an individual's attribution of personality towards other people. One hundred Chinese normal participants were asked to rate the personality of both male and female speakers after hearing a set of digital voice recordings (in Cantonese) developed in this study, as well as to indicate their willingness to help and whether they like each person (the speaker). Furthermore, the personality of each participant and speaker was also assessed using the short form of NEO-FFI (Chinese version). Each voice recording was manipulated in terms of Ekman & Friesen's 6 universal emotions, and whether the recording was based on either a short sentence or just a single character. People's personality attribution was affected by the difference between their own personality and that of the speaker, the emotional tone and linguistic composition of voice recordings, and the gender of both the speaker and the rater. The implications of these results are discussed in light of current speech therapy for patients with Parkinson's disease and right-hemisphere brain damage.

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### B. GENKINGER, F. PULVERMUELLER, T. ELBERT, B. MOHR, B. ROCKSTROH, P. KOEBBEL, & E. TAUB. Constraint-Induced Therapy of Chronic Aphasia Following Stroke.

Patients with chronic aphasia were randomly assigned to two different groups: One group received conventional aphasia therapy (7 patients), the other group *constraint-induced* (*CI*) aphasia therapy (10 patients), which is a new therapeutic technique. It requires intense practice over a short period of consecutive days. In both groups, patients were treated for 30–35 hr. In the CI Aphasia therapy group treatment was given over 10 days of massed practice (3 hr/day minimum), in the conventional therapy group it was given over a longer period over ~4 weeks. CI Aphasia therapy led to significant and pronounced improvements on several standard clinical tests, on self-ratings, and on blind observer ratings of the patients' communicative effectiveness in everyday life. Conventional therapy failed to achieve comparable improvements. The data suggest, that using an appropriate technique the language of patients with chronic aphasia can be improved in a short period.

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#### T. SCHWEIZER, M. DIXON, & M. PISKOPOS. A Psychological Distance Account of Category-Specific Naming Impairments.

Category-specific deficits in object naming have often been explained using a living vs. nonliving distinction. We propose that, at least for some patients, naming impairments might be better explained in terms of the "psychological distance" between object representations. According to the psychological-distance principle, objects that share many visual and semantic features are located close together (forming crowded neighborhoods) in multidimensional psychological space and are, therefore, more prone to misnaming than objects with few competitors (i.e., objects from sparse neighborhoods). While previous work using novel shape-label pairings has provided support for the psychological-distance principle, investigations using ecologically valid line drawings had not been conducted. Category-specific naming impairments were investigated in FS, a patient with herpes viral encephalitis. FS was asked to name line drawings of living and nonliving objects selected from psychologically crowded and sparse neighborhoods. Object sets were matched on familiarity, name frequency, and visual complexity. FS named living objects with as much accuracy (76.7% correct) as he named nonliving objects (75% correct)  $(\chi^2(1) = 0.02, \text{ ns})$ . When objects were analyzed in terms of psychological

distance, FS correctly named all but one (98%) of the objects from sparse neighborhoods but only 53% of the objects from crowded neighborhoods ( $\chi^2$  (1) = 13.35, p < .005). Given his equivalent naming of biological and nonbiological entities, but his markedly superior performance in naming entities from sparse, relative to crowded, neighborhoods it would appear that a psychological-distance account of category-specific deficits is preferable to one which invokes a living *vs.* nonliving distinction.

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#### E.J. MOES. Slow Reading Speed As an Isolated Deficit.

Case studies are presented documenting the existence of slow reading in the absence of dyslexia (phonological decoding), orthographic retention difficulties (i.e., spelling or reading irregular words), scanning deficits, visuospatial problem-solving ability (e.g., Block Designs), low intelligence, or other cognitive difficulties. A dopamine deficiency hypothesis (particularly as it affects processing at the retinal level) is presented as a mechanism to explain this disorder. Literature relevant to this hypothesis is reviewed. It is argued that in clinical practice, measures of reading speed should be administered in addition to standard measures of single word decoding and passage comprehension to adequately diagnose reading difficulties.

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## C.S. LOUREIRO, I.P. MARTINS, & J.M. FERRO. Problems in Diagnosing Neglect During Acute Stroke.

Background and Objectives: The incidence of neglect following right hemisphere (RH) stroke is not well known, ranging from 12 to 85%, due the lack of uniform methodology used in different studies. Our purpose is to determine the frequency of different neglect manifestations during acute stroke, and the practicability and sensitivity of different tests used in the diagnosis. Method: Consecutive patients admitted to a Stroke Unit with RH stroke were assessed, during the first five days of illness through a test battery including: (1) Glasgow Coma Scale (GCS); (2) National Institute of Health Stroke Scale; (3) Behavioral Inattention Test; (4) Personal neglect test; (5) Anosognosia scale; (6) Visual, somatosensory, and motor extinction tests. Results: There were 38 patients (13 females; 25 males) evaluated during the first 6 months of study. Their age average was 58.4 years; 17 had ischemic and 21 hemorrhagic strokes. One was excluded for low GCS. Many tests could not be used in the acute period, because they required the patients to be able to sit unsupported, to have their corrective glasses and to write/draw. The percentage of patients tested ranged from 25-83% in most behavioral tests to 28-36% in most conventional tests. Conclusions: Sensitive tests for neglect are not always applicable in the acute stroke due to associated neurological impairment. This should be taken into account when estimating the prevalence of neglect, and when selecting a test battery for acute assessment.

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#### Paper Session 5/9:00-10:30 a.m.

#### ASSESSMENT AND LITERACY

## A. REIS, M. GUERREIRO, & K.M. PETERSSON. The Influence of Educational Level on a Neuropsychological Battery.

*Introduction:* The study of illiterate subjects represents one approach to investigate the interactions between biological and cultural factors in cognitive development. However, it is necessary to ensure that the different literacy groups studied are similar in all relevant aspects except for the direct consequences of not having had the opportunity to acquire a written language or receive any formal education. *Goal:* To characterize the performance of a population of literate and illiterate subjects, with similar