PSYCHIATRIC AND PERSONALITY DISORDERS PROFILE.

STOP PRESS

- Elevation of mood in withdrawn students with EEG-neurofeedback.  

- Retarded habituation of EEG oscillations in students high on unreality experiences.  

For an integrative over view of work including schizophrenia, EEG-biofeedback and hypnosis see:


**Background** Schizophrenia and schizotypy have been long standing interests beginning with doctoral studies investigating temporal lobe and lateralised dysfunction in schizophrenia with psychophysiological and psychophysical measures (1973).

In 1977 established a Neuro-Psychophysiology laboratory at Charing Cross Hospital specialising in EEG recording, and producing over 250 scientific publications on topics including schizophrenia, psychosis-proneness, brain functional lateralisation, attention and memory, stress, hypnosis, headache, energy medicine, and EEG- biofeedback (neurofeedback).

**CURRENT RESEARCH**

#A Identification of phenotypes in the population that can be used as surrogates for neurocognitive dysfunction in schizophrenia.

- EEG oscillations:

- Micro States

- Complexity
- Mismatch Negativity


- P50


- Lateral Asymmetry in Recognition Memory & Visual Processing


Developed a three syndrome model, based originally on research on functional lateralisation in schizophrenia. The same syndromes and neurocognitive correlates were found in schizotypy.

- activation (left hemispheric activation – fronto-limbic),
- withdrawal (right hemispheric – fronto limbic),
- unreality (inconsistent lateralisation with subcortical/early processing abnormalities).

Reviews of Model and Empirical Evidence in Journals (in addition to reports above).


Reviews of Model and Empirical Evidence In Textbooks


Personality Scale

A personality scale is undergoing development based on the three-syndrome model with scales of activation, withdrawal and unreality – the Personality Syndrome Questionnaire.


#C EEG-Biofeedback (Neurofeedback).

NF research began in 1996 with a distinguished investigator grant award from NARSAD (National Alliance for Research on Schizophrenia & Depression), USA, and support of the Saugstad Fund, Norway, to explore feasibility of shifting balance of activity inter-hemispherically in schizophrenia. This followed the syndrome model of illness and recovery in schizophrenia.

Interhemispheric training was first achieved in medical students, with inward looking (introverted, withdrawn) students the more successful, and a demonstrated in schizophrenic patients when distractibility was controlled by medication.


Training with the EEG alpha/theta protocol has successfully elevated mood in students with high withdrawal/social anxiety scores on the schizotypy scale, with the support of Brain Health, London.


#D Neurodevelopmental Influences on Psychosis : Pubertal Timing.

With support of the Saugstad Fund explored the influence of extremes of pubertal timing on schizotypy.


Research on Neurodevelopmental Disorders has included dyslexia and (earlier) autism.


#E The Neurocognitive Effects of Ecstacy.
Research was supported by the Saugstad Fund and the Altered States of Consciousness Consortium, Institute of Psychological Frontiers, Freiburg.

Evidence was provided of cognitive deficits.


PREVIOUS RESEARCH

Previous Research with high Citations

- Pioneered the application of experimental neuropsychological methods in schizophrenia.
  

- Contributed to the first UK PET study of schizophrenia.
  

- Developed a psychophysiological subclassification of schizophrenia relating to arousal.


- Pioneered lateralisation research in schizophrenia.


- Inaugurated a series of international conferences beginning at Charing Cross Hospital in 1978.


Special issue of the *International Journal of Psychophysiology*, 34, 1999

*Textbooks: Main Contributions.*


