research and primary care. A multi-axial version has also been developed and is currently undergoing field trials. Three centres in Australia and New Zealand have participated in these trials, using the preliminary version of the instrument.

Methods: Pairs of raters independently scored 12 case histories provided by WHO and 10 patients interviewed jointly for diagnoses, disabilities (using the WHO disability assessment schedule) and environmental and circumstantial factors (using a specially developed list). They also coded the applicability of the scales, and the overall ease of use of the multiaxial system.

Results: The levels of agreement on diagnoses were similar to those previously reported. The intraclass correlation coefficients for the 4 subscales of the Disability assessment schedule ranged between 0.41 and 0.51 for the written case histories and 0.52 and 0.60 for the jointly interviewed patients. The values for kappa for the 11 subcategories of environmental and circumstantial factors ranged from 0.03–0.55 for the case histories and 0.35–0.81 for the patients interviewed in each centre. Agreement in the latter group was best for childhood events, problems related to primary support group, and problems related to housing and the social environment (kappa $\geq$ 0.67).

Conclusions: There are problems with the reliability of axis II and III of this system and they have been further developed by WHO in response to these and similar concerns. Case histories used in reliability exercises need careful selection to avoid ambiguities and missing data. Establishing a universal list of environmental and circumstantial factors relevant to psychiatric disorders is a challenging task.

MAGNETIC RESONANCE IMAGING IN ALCOHOLIC KORSAKOFF'S SYNDROME: EVIDENCE FOR AN ASSOCIATION WITH ALCOHOLIC DEMENTIA

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A magnetic resonance imaging study of 19 alcoholic Korsakoff patients, 17 non-amnesic alcoholics and 23 non-alcoholic controls was undertaken. Several measures of ventricular size and interhemispheric area were significantly greater in the Korsakoff patients. Interhemispheric fissure size was greater in the non-amnesic alcoholics than the non-alcoholic controls. Cortical grey matter T1 values were essentially the same for the three groups, while the deep grey and the white matter T1 values for the Korsakoff patients were significantly greater than the non-alcoholic controls. These results indicate widespread cerebral atrophy in alcoholic Korsakoff patients, which is largely subcortical and does not develop independently of the diencephalic pathology. Alcoholic dementia may be a more severe form of alcoholic Korsakoff syndrome, aetiologically related to the nutritionally induced diencephalic pathology rather than the neurotoxic effects of alcohol on the cortex.

A CONNECTIONIST MODEL OF SEMANTIC DEGRADATION IN ALZHEIMER'S DISEASE

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Neuropsychological studies of patients with dementia of Alzheimer's type (DAT) would suggest that specific semantic information is more susceptible to neuropathology, than general semantic information. For example, patients are better able to recognise an item as an instance of a superordinate category, than they are to name the item (Chertkow and Bub, 1990). They are also better at verifying properties which are true of many items in a category, than those which are specific to few members (Done and Gale, submitted). Such findings have previously been cited in support of hierarchical models of semantic memory (e.g. Collins and Quillian, 1969; Rosch, 1975), in which knowledge is specified at levels ranging from the most general (e.g. animal) to the most specific (e.g. humming-bird). Such models assume discrete levels at which properties are true (e.g. the property 'has wings' is stored at the 'bird' level because it is true of all birds). However, it is rare that properties are true of all members or only one member of a category; rather, they vary between these levels (Komatsu, 1992). This is at odds with the assumptions of hierarchical models, but is better accounted for by neural network models in which the difference between general and specific features, is one of frequency within a training set. We have designed a modular neural network system to simulate the experiments we have run with DAT patients. The network is presented with real images and is trained to construct a semantic representation and then to name each image. We investigate the performance of the model, when connections have been randomly deleted to simulate the neuropathology of DAT. We find that general features are more robust to the effects of 'lesioning' than specific features, and that this has implications for picture naming. We argue that our model provides a more plausible account of the semantic degradation in DAT.

DIFFERENCES OF DYNAMIC EYE MOVEMENTS IN SCHIZOPHRENIA AND AFFECTIVE DISORDERS — A LABORATORY INVESTIGATION USING ELECTROOCULOGRAPHY

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Background: Smooth pursuit performance varies considerably among individuals and is affected by many factors such as the properties of the stimulus, attention, age and neuropsychiatric disorders. In schizophrenia and affective disorders increased rates of saccadic intrusions have been observed during smooth pursuit. The aim of our ongoing study was to compare various dynamic measures of smooth pursuit and saccadic eye movement among depressive and schizophrenic subjects to evaluate a possible diagnosis related specificity.

Methods: 20 schizophrenic and 20 depressive patients were diagnosed according to DSM-IV criteria. Psychopathological symptoms were assessed on the BPRS, SANS, SAPS and Hamilton Depression Rating Scale. All patients underwent a neuroradiological examination comprising also functional imaging. Pursuit was measured during tracking of a predictable, sinusoidal target motion using the Nicolet Nystar oculomotor standard testing protocol.

Results: Both groups showed an elevated rate of inappropriate saccades which was clearly higher for schizophrenic subjects. Also differences in performance of patients peak velocity to peak stimulus was observed. Mean gain values were 0.69 for depressive patients and 0.96 for schizophrenics. A significant difference was found in asymmetry ($p < 0.01$) and DC Offset values ($p < 0.01$) comparing and quantifying left/right symmetry. Other measures including delay and accuracy failed to reach significance.

Conclusion: Our preliminary data show that by oculomotor testing significant diagnosis related differences in eye tracking pattern