

## IN THIS ISSUE

This issue contains two reviews on cognitive reserve and decline, and five further papers examine various aspects of cognition and psychiatric disorder. Three papers focus on aspects of depression, and three individual papers examine a variety of topics.

### **Cognition: Reviews**

In the first review, Barnett *et al.* (pp. 1053–1064) examine models of cognitive reserve and discuss their application to neuropsychiatric disorders. Using schizophrenia as an exemplar on the basis that premorbid IQ and cognitive function, indicators of cognitive reserve, have been extensively studied in this disorder, the authors argue that cognitive reserve may affect risk for neuropsychiatric disorder and influence the manifestation and course of symptoms. They conclude that strategies for enhancing cognitive reserve, both pharmacological and non-pharmacological, may be of value in the treatment of neuropsychiatric disorders.

In the second review, Valenzuela & Sachdev (pp. 1065–1073) review longitudinal studies of brain reserve and cognitive decline. Reviewing data from 18 cohorts comprising over 47 000 subjects, the authors conclude that there is strong evidence that higher behavioural brain reserve is associated with a decreased cognitive decline over time after accounting for potential confounders and ascertainment bias.

### **Cognition: Empirical studies**

This issue contains five papers reporting empirical findings on various aspects of cognition in psychiatric disorders. Leitman *et al.* (pp. 1075–1083) present data comparing the ability to detect sarcasm in 22 cases with schizophrenia and 17 matched controls. Compared with controls, cases were substantially worse at this task. The authors conclude that this provides evidence of deficits in the ability to infer internal subjective states from vocal cues in subjects with schizophrenia, a finding that is consistent with the suggestion that theory-of-mind deficits may underlie problems of social interaction in schizophrenia.

Glahn *et al.* (pp. 1085–1095) investigated memory impairment in 40 patients with bipolar disorder, 40 with schizophrenia and 40 healthy controls, addressing the question of the degree to which memory deficits overlap in patients with bipolar disorder and patients with schizophrenia. They found that memory function was poor in both groups of patients. Further, while the nature of the impairments differed between the groups, the memory systems involved overlapped, which the authors interpret as supporting the claim that there are commonalities in the neurological bases of bipolar disorder and schizophrenia.

Liddle *et al.* (pp. 1097–1108) report data from an fMRI study of cerebral activity during a three-tone auditory oddball target detection task in 28 patients with schizophrenia and 28 healthy controls. Patients with schizophrenia were found to have both a general deficit in the cerebral response to attention-captivating stimuli and a more specific deficit in the function of the brain system concerned with the mediation of motivation.

Corcoran *et al.* (pp. 1109–1118) used two newly developed tasks to compare heuristic reasoning in patients with current or remitted paranoid delusions, patients with depression and healthy control subjects. Both paranoid and depressed subjects showed similar reasoning biases in believing pleasant events would not happen to them. The group with paranoid delusions showed a further tendency to view other people as threatening.

Christensen *et al.* (pp. 1119–1129) investigated the hypothesis that genetic liability to affective disorder is associated with cognitive impairment. They employed a case-control design to compare cognitive performance between healthy twins with a high risk (i.e. those with an affected co-twin)

and those at low risk (i.e. without an affected co-twin). On virtually all measures of cognitive performance, twins at high risk for unipolar depression performed worse than low-risk twins. Twins at high risk for bipolar disorder performed worse on measures of episodic and working memory.

### Depression

In the first of three papers focusing on aspects of depression, Parker *et al.* (pp. 1131–1139) report data on: (1) the psychometric properties of the Temperament and Personality (T&P) Questionnaire, tested in a sample of 529 subjects; and (2) a pilot study of the T&P Questionnaire's capacity to differentiate over-represented personality traits in 52 patients with major depression. The authors report good psychometric properties for the T&P Questionnaire. They do not, however, find evidence to support the hypothesis that all 'normal' personality styles are over-represented in depression, and conclude more flexible models of personality traits may be useful in future studies.

Biederman *et al.* (pp. 1141–1152) examined the effects of parental panic disorder (PD) and major depression (MD) on risk of disorder in their children over a 5-year period. Four groups of subjects were included: children of parents with (1) both PD and MD; (2) PD only; (3) MD only; and (4) no disorder. The authors found strong evidence that parental PD was selectively associated with a range of anxiety disorders in their children. Parental MD was selectively associated with MD and disruptive disorders in their children. The authors interpret these findings as providing evidence for divergent risk in children conferred by different parental diagnoses.

Kuo *et al.* (pp. 1153–1162) investigated the temporal relationship between major depression (MD) and alcohol dependence (AD) in a sample of 7477 twins followed over time. They found evidence that prior MD increased risk for later AD, particularly in women, a finding consistent with the hypothesis that the co-occurrence of MD and AD often arises from efforts to self-medicate MD. The authors did not find strong evidence either prior AD increased risk of later MD or that a common set of aetiological factors impacted on risk for both disorders.

### Other topics

This issue concludes with three papers examining a variety of topics. Domes *et al.* (pp. 1163–1172) present data from a study of inhibitory functioning in a sample of 28 subjects with borderline personality disorder (BPD) and 30 healthy controls. In line with their primary hypothesis, they found that BPD subjects showed impaired inhibition in working memory and when processing negative material. The authors conclude that deficits in inhibition of negative stimuli may underlie emotional instability in BPD.

Engelborghs *et al.* (pp. 1173–1182) investigated associations between frontal lobe features, and their behavioural and cognitive characteristics, and different forms of dementia in a study of 248 patients. They found that a diagnosis of Alzheimer's disease, and to a lesser degree mixed dementia, was associated with more severe and frequent acts of agitated and aggressive behaviour, and more severe symptoms of psychosis. These behaviours and symptoms were less common in subjects with frontotemporal dementia and Lewy bodies dementia.

Slade *et al.* (pp. 1183–1191) present findings from a subgroup analysis of an RCT, conducted in south London, of routine completion and feedback of outcome measures. Subjects were drawn from the caseloads of community mental health teams and there were no restrictions by diagnosis. They tested the hypothesis that premorbid IQ moderates the impact of the intervention on outcomes. They found that those with a premorbid IQ of greater than 111 benefited most from receiving feedback on routine outcome measures. The authors argue that such findings, if replicated on larger samples, may help services in targeting interventions more efficiently to those who are most able to benefit.

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