

In this issue

This issue contains one review, on the genetics of schizophrenia, and three associated commentaries. Other sets of papers examine various aspects of psychosis, depression and other mental disorders, eating disorders, and fears. Three final papers examine a variety of topics.

Genetics of schizophrenia

In the review, Crow (pp. 1681–1685) examines current evidence on genetics and schizophrenia. He argues that findings to date have been disappointing, with initial findings on candidate genes being followed by a failure of replication in large sibling pair linkage surveys and targeted association studies. He further argues that the proposition that this failure to replicate indicates the existence of many susceptibility genes of relatively small effect approaches the unfalsifiable. The data, Crow argues, point to epigenetic processes, i.e. variation not in the DNA sequence but in trans-generational modification of the DNA sequence.

Three commentaries assess the arguments made by Crow. In the first, Collier (pp. 1687–1691) comments that the polygene hypothesis is difficult to test, because of the required samples, but that this does not make it unfalsifiable. He further notes the importance of investigating gene x environment interactions. In the second commentary, Sullivan (pp. 1693–1696) argues that two of Crow's conclusions are premature: (1) that genetic wide association studies will not work for schizophrenia, when GWAS has yielded significant findings for a range of other complex disorders; and (2) that there is an epigenetic basis for schizophrenia, when there remain other plausible hypotheses to account for current data. In the final commentary, O'Donovan *et al.* (pp. 1697–1699) argue that there is strong (but not necessarily conclusive) support implicating some genes in schizophrenia (*DTNBP1*, *NRG1*, *G72*, *DISC1*). That the evidence is not yet absolutely conclusive, the authors argue, does not mean they are false-positive findings, but merely that some uncertainty remains.

Psychosis

Morgan *et al.* (pp. 1701–1715) investigated the relationship between psychosis, ethnicity and a number of current and long-term indicators of adult social disadvantage and isolation in a sample of 391 cases with

a first episode of psychosis and 390 healthy controls drawn from the UK-based AESOP study. The authors found that all current and long-term indicators (e.g. unemployment, living alone, social housing) were associated with an increased odds of psychosis. Similar effects were found for White and Black Caribbean subjects. However, the prevalence of disadvantage was higher in Black Caribbean controls. The authors conclude that, if disadvantage and isolation index factors increase risk of psychosis, their greater prevalence in the Black Caribbean population may contribute to the reported high rates of psychosis in this group.

Depression and other disorders

This issue contains three papers on depression and other disorders. In the first, Marchesi *et al.* (pp. 1717–1722) investigated alexithymia before, during, and after an episode of depression in a sample of 16 women with major depression, 21 with sub-threshold depression, and 112 with no depression, assessed at 1-month intervals during pregnancy. The authors found that alexithymia in women with major depression was similar to that in women with no depression pre-onset, elevated during an episode, and similar after an episode. The authors conclude that alexithymia is state dependent in depressed pregnant women.

Ma *et al.* (pp. 1723–1730) examined the prevalence (12-month and lifetime) and sociodemographic correlates of depression in a sample of 1601 elderly patients (aged ≥ 60 years) in rural and urban areas of Beijing, China. The 12-month prevalence was 4.3%; the lifetime prevalence was 7.8%. For both, the prevalence was around two-fold higher in women compared with men. Other sociodemographic correlates included lower educational level, income, and living in a rural area. Of those with depression, 25% were receiving some form of treatment.

Van Grootheest *et al.* (pp. 1731–1740) investigated the existence, and causes, of marital resemblance in obsessive-compulsive (OC), anxious and depressive symptoms in a population-based sample of 1400 twin-spouse pairs and more than 850 parent pairs. The authors found small but significant within-trait correlations for spouse similarity in OC, anxious and depressive symptoms. As the effects were small, it was not possible to distinguish between phenotypic assortment and social hegemony in causing similarities.

Eating disorders

This issue contains two further papers on aspects of eating disorders. In the first, Dickson *et al.* (pp. 1741–1748) investigated attentional difficulties in anorexia nervosa (AN). A sample of 24 subjects with AN and 24 controls were randomly allocated to subliminal or supraliminal exposure to visual stimuli while performing working-memory tasks. The authors found that, compared with controls, those with AN made fewer errors in the subliminal, and more errors in the supraliminal, conditions, irrespective of the stimulus. Number of errors correlated with length of AN. The authors conclude that decreased ability to concentrate in the presence of explicit distractors is a feature of AN.

Klump *et al.* (pp. 1749–1757) examined the relationship between changes in ovarian hormones and binge eating over the menstrual cycle in two studies using community participants. In the first, a study of 10 women, the authors assessed the sensitivity of a number of measures of binge eating to menstrual cycle fluctuations. The Emotional Eating subscale of the Dutch Eating Behaviour Questionnaire was found to be most sensitive. In the second, a study of nine women, the authors examined associations between ovarian hormones and binge-eating scores. The authors found inverse associations between binge eating and oestradiol and positive associations with progesterone across the menstrual cycle.

Fear

Two further papers examine aspects of fear. Kendler *et al.* (pp. 1759–1769) investigated genetic and environmental influences on the development of common fears from young adolescence to early adulthood in a sample of 2404 twins from the Swedish Twin Study of Child and Adolescent Development. The authors identified four fear factors: animal, blood injury, situational and social. Using a multivariate longitudinal twin analysis, they found evidence that genetic and environmental risk factors for individual fears are partly mediated through a common fear factor and partly fear specific. In addition, the authors found that genetic effects declined in importance and became more fear specific with age.

Felmingham *et al.* (pp. 1771–1780) examined the impact of dissociation, in post-traumatic stress disorder (PTSD), on fear processing at different levels of awareness in order to assess whether dissociation is a higher order regulatory response to threat. Using fMRI, in a sample of 23 PTSD patients (11 displaying non-dissociative and 12 displaying dissociative reactions to consciously and non-consciously perceived fear stimuli). The authors found that dissociative PTSD was associated with enhanced activation in a number of

brain regions, including the ventral prefrontal cortex for conscious fear. Reduced activation was evident in dorsomedial prefrontal regions for conscious fear. The authors conclude that these findings support the theory that dissociation is a regulatory strategy invoked to cope with fear, at least during conscious processing of threat.

Other topics

This issue concludes with three papers on a variety of topics. In the first, Langrebe *et al.* (pp. 1781–1791) investigated the pathophysiology of electromagnetic hypersensitivity (EHS) by assessing electromagnetic field-specific (EMF) cognitive correlates, discrimination ability and neurobiological parameters in a sample of 89 electromagnetic hypersensitive patients and 107 matched controls. The authors found that discrimination ability was reduced in EHS patients and that intra-cortical facilitation was reduced in younger and increased in older EHS patients. In addition, EMF-related cognitions (e.g. rumination, symptom intolerance) differentiated cases and controls. The authors conclude that significant cognitive and neurobiological alterations suggest genuine vulnerability in EHS patients.

Milne *et al.* (pp. 1793–1802) compared the predictive validity of four family history scores, varying in the extent to which the number of disordered relatives was considered, for nine disorders in the Dunedin study ($n=981$). The authors found that each score was significantly associated with all disorders. Scores taking account of the number of disordered relatives produced stronger associations than for dichotomous scores for a number of disorders. Further taking account of family size produced the most significant associations, depending on the prevalence of disorder in the families.

In the final paper, Odenstad *et al.* (pp. 1803–1814) investigated relationships between a series of proxies for adoption-related circumstances and cognitive development in a sample of conscripts to the Swedish military, divided into three groups: adoptees born in South Korea ($n=746$), adoptees born in other non-Western countries ($n=1548$), and non-adoptees ($n=330986$). The authors found that South Korean adoptees had higher global and verbal test scores compared with other adoptees. The other adoptees who were adopted after the age of 4 years also had lower test scores compared with non-adoptees. The authors conclude that negative pre-adoption circumstances may have persistent influences on cognitive development.

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