

Counting the Counters

The rates of obsessive-compulsive disorder (OCD) in several epidemiological studies have been surprisingly high, up to 2.5% of the general population. Broad diagnostic criteria and lay interviewers may have led to overcounting. Many people have intrusive thoughts and ritualized behaviors, but generally these do not interfere with our lives. Crino et al. (p. 876) report an Australian survey of 10,641 adults that included only obsessions or compulsions causing marked distress, consuming substantial time, and interfering with functioning. By these standards, OCD was present in 0.6% of the population. OCD was often accompanied by other psychiatric disorders, but substance abuse was less common than in other surveys. Compared to earlier diagnostic systems, the current criteria were more likely to identify people who are disabled, receive medical services, and are unemployed. This suggests a more accurate identification of people with true illness.



William Blake (1757–1827)
Images in Psychiatry (p. 866)

Temperament: Missing Link Between ADHD and the DRD4 Gene?

The quest to discover genes underlying attention deficit hyperactivity disorder (ADHD) has led researchers to the gene for the dopamine D₄ receptor (DRD4), particularly the 48-base-pair (48-bp) variant. As DRD4 has also been associated with the trait of novelty seeking, Lynn et al. (p. 906) wondered whether novelty seeking is an intermediary between the DRD4 gene and ADHD. Apparently not, according to personality profiles and genetic tests of 171 adults having two children with ADHD. The 7-repeat allele of the DRD4 48-bp variant was present in 33% of these parents. It predicted the presence of ADHD but not the trait of novelty seeking. However, novelty seeking contributed to ADHD even more than did DRD4. Thus, its association with ADHD is strong but appears not to stem from the 48-bp DRD4 variant.

The Smoking Gene

Susceptibility to smoking may be influenced by the gene for the serotonin transporter, a protein that controls cellular movement of serotonin. Production of the protein is affected by a promoter region on this gene and by certain DNA sequences with variable numbers of tandem repeats (VNTRs). The serotonin transporter gene may also influence smoking indirectly, by determining personality traits that influence smoking. In 330 families of smokers and nonsmokers, Kremer et al. (p. 924) found that smoking was strongly associated with the long allele for the promoter region of the serotonin transporter gene and with the 12-repeat VNTR. Novelty seeking and reward were weakly related to the genetic variations but were independent of smoking. The relationship between smoking and the serotonin transporter gene did not vary by the degree of nicotine dependence, suggesting that the gene influences whether a person begins smoking, rather than the duration or quantity of smoking.

The Drug-Free Thalamus in Schizophrenia

The thalamus comprises multiple nuclei that filter information from the senses and relay it to the prefrontal cortex and elsewhere. Patients with schizophrenia have disturbed sensory and attentional functioning, pointing to problems in the thalamus. Studies of how the thalamus works in schizophrenia have been complicated by patients' previous antipsychotic treatment, use of mental tasks that did not stimulate the thalamus, and lower-resolution brain imaging. Lehrer et al. (p. 931) used positron emission tomography to compare brain metabolism in patients awaiting treatment for schizophrenia and in healthy subjects as they performed a visual attention task that activates the thalamus. The results confirm the previous finding of lower activation in the medial and posterior thalamus of schizophrenia patients than in healthy subjects. The affected regions include the medial dorsal nucleus and the pulvinar, which have important reciprocal connections with prefrontal and temporal regions.

Some Things Are Better Not Remembered

Many people with posttraumatic stress disorder (PTSD) have frequent, disturbing memories of the traumatic event, but amnesia also can occur. To assess whether remembering, or not remembering, the event is related to the development of PTSD, Gil et al. (p. 963) questioned 120 patients with traumatic brain injuries within 24 hours of the event; 55 remembered the traumatic event and 65 did not. Six months after their injuries, 14% had PTSD, and it was twice as likely among the patients who remembered what happened as among those who did not. Patients with postinjury memories were more likely to re-experience the event at 6 months, but not to have avoidance and hyperarousal symptoms. Asking patients whether they remember the event may help identify those at risk of PTSD. On the other hand, interventions that elicit traumatic memories may be counterproductive in some cases.

