

Maupassant was aware of his diagnosis and at the time he wrote *Le Horla* had been the victim of neuralgia, ocular troubles, and chronic insomnia which he described graphically in letters to his friends. He was well aware that when he wrote about madness his readers might see his work as a confessional account of his own symptoms and illness. He had visited Charcot in the Salpêtrière and was himself fascinated with ideas in vogue at the time, including the work of Mesmer, which inspire the dinner party episode in the story when a psychiatrist demonstrates hypnosis to sceptical guests. He was also particularly interested in abulia, believing human will to be a very fragile mechanism as our sensibilities are continually being affected by a myriad of influences of which we are scarcely aware.

It is ironic that so much is known about the illness of this man who deplored the posthumous revelations of his mentor Flaubert's epilepsy, believing that details of the writer's life should remain hidden, and that the work alone should

survive. Nonetheless, it seems that he saw in his own affliction a sign that he was marked by destiny for great things, a spur rather than an obstacle to his endeavours.

Literary commentators have protested against psychiatric dissection of the story, preferring to interpret it symbolically as a visitation by the ghost of Literature, or perhaps of Flaubert himself. Paradoxically, some saw the writing of the story as a kind of therapeutic exorcism for Maupassant. Written in the first person, there can be little doubt about the author's personal involvement in the work. In *Le Horla*, what is essentially a monologue chronicling a psychotic breakdown is sustained by the vigour and immediacy of the language. It is a compelling dramatic piece by a man evidently still at the height of his creative powers.

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Not so smart drugs

Dr Kwame McKenzie of the Institute of Psychiatry contrasts the publicity and the evidence behind drugs that are claimed to make us brighter.

Research into smart drugs is a field of pharmacology which never fails to capture the public imagination. And, because the idea of being able to take a pill to circumvent hours of studying is so appealing, much has been made of successes in this field.

There have been claims of memory enhancing properties for over a hundred substances – acetyl-L-carnitine, choline, inositol, lecithin, phenylalanine, hydergine, piracetam, aniracetam, oxiracetam, pramiracetam, pyroglutamate, vasopressin and bromocriptine to name but a few. However, a recent unpublished review by Dr Stephen Rose, from the Open University, concluded that there was no justification for the claim that any of the smart drugs can boost the memory of unimpaired humans.

There is evidence, though, of some effects in people with cognitive impairments of various kinds. A 1993 article from the Consumer's Association based on Dr Rose's report claimed that studies have shown that vasopressin improves the memory and alertness of people

suffering from diabetes insipidus, that there are unrefuted claims that piracetam can help dyslexic children learn to read and that piracetam, other 'acetam' drugs, co-dergocrine mesylate, hydergine and pyroglutamate produce a improvement in memory and alertness in dementia.

Other researchers have been less rigorous but have been effective in producing a popular image of smart drugs which does not correspond with research evidence. The best known publicists are probably Dr Ward Dean, a Florida based geriatrician, and John Morgenthaler, a journalist and entrepreneur whose book is credited by some with starting a smart drug consumer boom. Unashamedly titled *Smart Drugs and Nutrients: how to improve your memory and increase your intelligence using the latest discoveries in neuroscience*, it includes chapters on 'over the counter cognition enhancers', 'overseas drugs by mail' and 'taking exams', and six pages of uncritical testimonials and case histories in case readers are in any doubt of the efficacy of the compounds covered.

Not long after the book's publication interest in smart drugs crossed the Atlantic. Initially a small-scale underground black market supplied students but the trade became big business, with

mail order firms claiming that the drugs could assure an examination pass, give you an edge in business negotiations or protect your memory from the effects of ageing.

Until recently companies were still legally selling smart drugs including, vasopressin, piracetam, hydergine, choline, inositol, lecithin, acetyl-L-carnitine, and pyroglutamate direct to the public. A loophole in the Medicines Act, designed to allow foreign nationals to continue to obtain personal supplies of drugs which they had been prescribed in their own countries, was exploited. By taking orders and money here but posting medicines to customers from abroad, these companies stayed within the law. A department of Health crack-down in May 1993 ended this trade. However, the history of one drug – piracetam – shows how tenuous the smart drug label often is and how difficult it is to remove once it has been ascribed.

Piracetam is one of the most popular smart drugs. It is taken either by itself or in combination with other smart drugs such as choline and hydergine. It was developed in the late 1960s in Belgium and developed a reputation as a smart drug following animal and human experiments in the 1970s. Facilitation of learning in rats, rabbits and goldfish given large doses – up to ten times that recommended in humans – put piracetam on the smart drug map. It was also claimed that the drug increased resistance to learning impairment due to age, hypoxia, stress and sensory deprivation in animals.

In humans there were claims of improved EEG rated vigilance and verbal learning and memory, the latter on the strength of four positive but small double blind controlled studies. In one double-blind cross-over study 16 university students took 1600 mg of piracetam or placebo three times a day for two weeks and undertook a verbal learning test at the end of each week. This consisted of series of words presented as stimuli on a drum which they had to remember. In the second week, the students did significantly better when taking piracetam than when taking placebo.

Many researchers have failed to replicate these findings. There has been no published positive study on the cognitive enhancing effects of piracetam in normals since 1980 and it is now common for piracetam to be used as a placebo in trials of other supposed smart drugs. Despite this lack of efficacy, piracetam has retained its smart label among the subculture of users.

Meanwhile, the search continues for drugs with memory enhancing properties and researchers such as Professor James L. McGaugh of the University of California are sure that a smart drug will eventually be developed. He has been working in the field for 26 years but is unimpressed by what he calls "media hype". "The whole smart drug use thing is a joke," he has said. His words are well worth remembering.

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