

Grof (1975, 1990) has been the most prominent explorer of these inaccessible regions for over 40 years and once research into lysergic acid diethylamide (LSD) became impossible, developed a technique for inducing non-ordinary states of consciousness called 'holotropic breathwork'. This offers many of the features of the psychedelic state without the need to take a drug. Using insights from the use of LSD and holotropic breathwork in thousands of people, Grof (1975) proposed an extended model of the psyche with psychodynamic, perinatal and transpersonal layers. These are provocative models of mind which challenge existing Western paradigms of consciousness and which probably reinforce mainstream suspicion of any insights purporting to arise from the psychedelic experience. However, they do represent a serious attempt to explore, describe and understand the complex features of the non-ordinary state of consciousness and its theoretical implications.

Holotropic breathwork is marketed more as a means of personal exploration than psychotherapy, but careful preparation, the context, a highly supportive setting and integration after the non-ordinary state of consciousness are deemed crucial if the experience is to have value (Grof, 1990). This approach is in contrast to the views of Strassman (<http://www.tripzine.com/interviews.asp?id=strassman>) who researched the use of N,N-dimethyltryptamine (DMT) in 65 volunteers between 1990 and 1995 in a hospital setting with little attention to the surroundings. Strassman (2000) concluded that DMT probably did not have a beneficial effect in itself, that its use was high risk and that psychiatrists generally did not have the experience, sensitivity or training to support, contain, direct or interpret the more unusual experiences that arise. Thus, although the drug is easily taken, the context and setting is a little more complicated and is at least as important.

My point is that psychedelic drugs are just one of a number of methods for the induction of a non-ordinary state of consciousness. Non-drug methods for the induction, exploration of and therapeutic uses for non-ordinary states of consciousness may prove to be more productive for psychiatrists interested in this area, given the controversy that the use of psychedelic drugs will always arouse.

**Grof, S. (1975)** *Realms of the Human Unconscious: Observations from LSD Research*. New York: Viking Press.

**Grof, S. (1990)** *The Holotropic Mind*. New York: Harper Collins.

**Sessa, B. (2005)** Can psychedelics have a role in psychiatry once again? *British Journal of Psychiatry*, **186**, 457–458.

**Strassman, R. (2000)** *DMT: the Spirit Molecule: a Doctor's Revolutionary Research into the Biology of Near-Death and Mystical Experiences*. Rochester, VT: Park Street Press.

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In his stimulating editorial, Dr Sessa gives a history of the enthusiasm for psychedelic psychotherapy that enjoyed a brief flowering following Hoffman's discovery of lysergic acid diethylamide (LSD) in 1943. Dr Sessa argues that the time may now have come for a reappraisal of the role of such substances in psychiatry. Having myself recently had cause to look at this literature (Edwards, 2005), I find myself somewhat less keen on a reinstatement of this practice.

Within the historical frame one could argue that the proper subject for the case study is the conduct and attitude of the professionals who were the enthusiasts of that time. The tone of the contemporary publications was in general remarkable for a willingness to get ahead of the research evidence, and rush to positive and at times even messianic conclusions. Here are some examples of writings within that genre: 'These agents have a part to play in our survival as a species...' (Osmond, 1957); 'The wonder of LSD is that it can bring within the capabilities of ordinary people the experience of universal love' (Davidson, 1961); 'I feel that those on the moving edge of new culture will eventually use these tools in a way that will utterly transform the nature of human consciousness' (Einhorn, 1971).

What one sees in those kinds of statements is the dubious ambition of therapists to gain possession of chemical magic and exert power over their drugged patients – the therapist as shaman rather than as evidence-based practitioner. But that I'm sure is not Dr Sessa's intention.

**Davidson, R. S. (1961)** Introduction: a psychologist explains. In *Exploring Inner Space: Personal Experiences Under LSD* (ed. J. Dunlap), pp. 3–10. London: Victor Gollancz.

**Edwards, G. (2005)** *Matters of Substance*. London: Penguin.

**Einhorn, I. (1971)** *From Data Collection to Pattern Recognition. Annual Report of the Smithsonian Institute*, pp. 537–548. Washington, DC: Smithsonian Institute.

**Osmond, H. (1957)** A review of the clinical effects of psychomimetic agents. *Annals of the New York Academy of Sciences*, **66**, 418–434.

**Sessa, B. (2005)** Can psychedelics have a role in psychiatry once again? *British Journal of Psychiatry*, **186**, 457–458.

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**Author's reply:** I am most grateful for the correspondence regarding my article on psychedelics. Dr Read is right to point out the various techniques for inducing a non-ordinary state of consciousness. As well as the breathwork developed by Grof (1990), humankind has historically used meditation, exercise, fasting, chanting, dancing and even sex to induce transforming internal changes. What all these states have in common is the final goal of increased awareness and a loosening of the ego – facilitating personal exploration and being useful therapeutically to aid psychotherapy. As well as non-drug-induced non-ordinary states of consciousness, psychedelics may have an important role to play – both in psychotherapy and in the scientific study of consciousness.

I agree with Dr Edward's comments about statements made by some overenthusiastic individuals of the psychedelic movement. Many clinicians of the 1960s (not to mention writers, artists and pop stars) saw LSD as a magic wand, a common panacea to assure 'better living through chemistry'. It was this attitude that killed genuine scientific study and kept the therapeutic potential of psychedelics shelved for so long.

Psychedelics cannot save the world, but they may have a role to play as adjuncts to the psychotherapeutic treatment of neuroses. We must at least study and research their potential with modern randomised controlled trials. For the hundreds of clinicians and thousands of patients of the 1950s and 1960s that witnessed the safe and effective usage of psychedelics, these substances did appear to be useful (Masters & Houston, 1973). But as a profession we need to distance ourselves from the Timothy Leary-esque, messianic approach to psychedelics, if we are to allow a dispassionate and scientific study of their potential.

I was pleased to read Dr Crowley's in-depth understanding of the complexity and value of the altered state of consciousness. Thankfully, there are clinicians such as Dr Crowley with the confidence not to dismiss the non-ordinary state of consciousness as mere 'acute confusion', but to believe that psychedelics, and non-drug non-ordinary states of consciousness, can inform and enlighten us with new approaches to understanding the mechanisms (and associated pathologies) of the brain. Since the earliest human societies we have sought knowledge and healing from these states – perhaps now this technique can be utilised in a scientific and evidence-based approach to relieve the burden of anxiety disorders for today's patients.

I am most grateful to Dr Sandison for his kind and supportive words – and thank him for the correction regarding the date of the American Psychiatric Association conference in 1955. I share his astonishment at the medical profession's inability or unwillingness to embrace the therapeutic potential of psychedelic substances. This shortcoming is augmented by the fact that the hiatus in research over the past 40 years appears to have been for socio-political rather than scientific reasons – and it is those pioneering psychiatrists like Dr Sandison who are right to feel disheartened.

I am enthusiastic, however, at the current re-emergence of interest in this field. There are increasing numbers of randomised controlled trials of psychedelics (largely from the USA) and these may yield results that guide future therapeutic applications (<http://www.maps.org>; <http://www.heffter.org>). There is also increasing interest in using psychedelics in consciousness research in the UK (<http://www.beckleyfoundation.org>).

I do hope that my article, and a forthcoming meeting to be held at the College (contact me at [drbensessa@hotmail.com](mailto:drbensessa@hotmail.com) for further details), can help raise awareness of this subject. I also agree with Dr Sandison in his plea for continued support from the College to bring this subject to the attention of doctors in the UK.

**Grof, S. (1990)** *The Holotropic Mind*. New York: Harper Collins.

**Masters, R. E. L. & Houston, J. (1973)** *The Varieties of Psychedelic Experience* (2nd edn). London: Turnstone Books.

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### Kraepelinian dichotomy

Craddock & Owen (2005) attribute the proposed demise of the Kraepelinian dichotomy to advances in genetic epidemiology, and rightly emphasise the need to integrate data across multiple domains in large numbers of people. However, it may also be important to use a population-based approach. This involves extra effort but avoids being misled by convenience samples which may not be representative of the population. This is illustrated by Fig. 1 in the editorial of Craddock & Owen which suggests that prototypical schizophrenia and prototypical bipolar disorder are relatively rare in clinical populations. Work in population-based samples suggests that there is an early, insidious-onset psychosis with a poor outcome affecting predominantly men – a 'neurodevelopmental' form of schizophrenia which is very close to dementia praecox (Castle *et al*, 1998). This prototypical form of schizophrenia together with prototypical bipolar disorder accounts for 50% of people with psychosis in a treated prevalence sample, demonstrating the utility of Kraepelin's division. In our experience affective and non-affective psychoses can be accounted for by these prototypical forms and a further two latent classes which appear to be valid (Murray *et al*, 2005). Whether such empirically derived classes might provide better phenotypes for genetic studies is as yet undetermined.

Until biological markers are identified there is perhaps only one way to improve our classification. Large-scale, empirical, population-based studies of psychiatric symptoms, demography, course, treatment response and outcomes are suggested to reclassify these disorders from first principles and provide an atheoretical framework which may capture underlying pathophysiological substrates. Such studies should, as described by Craddock & Owen, integrate both dimensional and categorical approaches but also require a developmental perspective across the life span. The debate about the Kraepelinian dichotomy illustrates the lack of evidence-based diagnostic classification in psychiatry as a discipline. It would be fitting if psychiatric genetics, which has been severely impeded by the lack of a robust nosology, focused the collective will of practitioners to establish the evidence base required for a psychiatric classification which at last reflects nature.

**Castle, D. J., Wessely, S., van Os, J., et al (1998)**

Subtypes of schizophrenia. In *Psychosis in the Inner City: The Camberwell First Episode Study*, pp. 37–49. Hove: Psychology Press.

**Craddock, N. & Owen, M. J. (2005)** The beginning of the end of the Kraepelinian dichotomy. *British Journal of Psychiatry*, **186**, 364–366.

**Murray, V., McKee, I., Miller, P. M., et al (2005)**

Dimensions and classes of psychosis in a population cohort: a four class, four dimension model of schizophrenia and affective psychoses. *Psychological Medicine*, **35**, 499–510.

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**Authors' reply:** We are in full agreement with Dr Murray regarding the utility of large-scale, population-based studies. These are highly desirable and will, we hope, be facilitated by the recent establishment of the Mental Health Research Network (<http://www.mhrn.info>) under the auspices of the UK Clinical Research Collaboration (<http://www.ukcrc.org>). We also agree that longitudinal variables such as course, outcome and treatment response might be key to classification, as Kraepelin supposed. However, although we have not undertaken relevant population studies ourselves, we are not convinced that Kraepelinian dichotomous categories are any more useful in population-based samples than in clinical samples. We find the studies of Van Os and colleagues (e.g. Krabbendam *et al*, 2004) persuasive that dimensional measures are useful in describing psychosis-related morbidity in the general population and, contrary to the proposition of Dr Murray, we would expect dimensions to be *more* useful than categories in populations unselected for severe illness.

Finally, we would like to restate and further emphasise our optimism about the likely rate of progress in identifying biological markers that can validate psychiatric diagnoses. Markers (in the form of genetic polymorphisms) have already been identified that challenge current nosology. For example, using the Bipolar Affective Disorder Dimension Scale (which rates affective and psychotic dimensions; Craddock *et al*, 2004) in a study of over 600 cases each of schizophrenia and bipolar disorder, we have demonstrated that a risk variant within the *Neuregulin 1* gene, which has been associated with risk of schizophrenia in several samples (reviewed in Craddock *et al*, 2005), may confer