Other psychiatrists seem less reticent about offering explanations for this strange symptom. Arieti (1974) summarises thus a case originally reported by another investigator: "Reitman (1951) reported a patient who thought that as a private in the army he had a dog's life. While on parade he disclosed his manifest outbreak of schizophrenia. He suddenly went on all fours and started to bark. His thought 'I am treated like a dog' became 'I am a dog', and consequently he acted as a dog."

Arieti, thus, discusses the symptom as the behavioural manifestation of concreteness of thinking in schizophrenia. Concrete thinking seems to be the underlying mechanism suggested by Shapira & Roy (*Journal*, March 1988, **152,** 432) when they attribute the "over-representation" of the syndrome in their hospital to "the proximity of the Newham Health Disrict to Barking and the Isle of Dogs".

GEORGE IKKOS

Napsbury Hospital
London Colney
Herts AL2 1AA

Reference

ARIETI, S. (1974) *Interpretation of Schizophrenia* (2nd edn). London: Crosby, Lockwood & Staples.

SIR: In response to Dr Buchanan's letter (*Journal*, October 1987, **151,** 562–563) and the subsequent case reports describing animal-like symptoms among patients (*Journal*, March 1988, **152,** 432–433), I wish to draw attention to the syndrome of lycanthropy, as so far no reference has been made to this in the correspondence.

Lycanthropy is a delusion where an individual believes that he or she has been transformed into an animal or whose behaviour is suggestive of such. It is the syndrome from which the 'werewolf' phenomenon has arisen. However, delusional transformation is not confined to wolves, and may involve any type of animal. Accompanying the virtual extinction of wolves in Europe has been a corresponding decline in reports of the 'werewolf' phenomenon and an increase in cited cases of transformation into other animals, most commonly the domestic type.

A detailed case report of a woman suffering from psychotic depression who believed she was a dog and adopted canine-like behaviour (including getting down on all fours and barking) has previously been reported in this Journal (Coll *et al*, 1985). Recently a further twelve cases of lycanthropy were reported involving delusional transformation into dogs, wolves, cats, rabbits, gerbils, etc. (Keck *et al*, 1988).

Lycanthropy is most commonly related to severe psychosis, and the differential diagnosis includes schizophrenia, manic-depressive disorder, psychotic depression, hysterical neurosis, and organic brain syndrome. It appears that lycanthropy is still very much alive as a clinical entity, and it warrants consideration whenever patients present with animal-like symptoms such as the recent cases reported in this journal.

G. O'SULLIVAN

Institute of Psychiatry
De Crespigny Park
London, SE5

References

COLL, P. G., O'SULLIVAN, G. & BROWNE, P. J. (1985) Lycanthropy lives on. *British Journal of Psychiatry*, **147,** 201–202.

KECK, P. E., POPE, H. G., HUDSON, J. I., MCELROY, S. L. & KULICK, A. R. (1988) Lycanthropy: alive and well in the twentieth century. *Psychological Medicine*, **18,** 113–120.

The Dopamine Hypothesis

SIR: I was surprised to read in the recent commentary by Crow (*Journal*, October 1987, **151,** 460–465) that "direct dopamine receptor agonists (e.g. apomorphine, bromocriptine) are not found to be psychotogenic in the same way" as amphetamines. In a review of over 600 endocrine cases treated with dopamine agonists, mainly bromocriptine (Turner *et al*, 1984) we found that at least eight patients had suffered severe psychotic side-effects. These were largely paranoid psychoses, and one of them was an extremely complex delusional parasitosis with additional first-rank symptoms. These reactions occurred in individuals with no previous history of psychotic illness, and at a wide range of dosage levels. The survey was not exhaustive, although all patients had been closely followed up by the Endocrine Department. Nevertheless, an incidence of at least 1% cannot be dismissed. Nor were the patients suffering from a primary disorder of dopamine metabolism, such as those with Parkinson's disease who have also been reported as suffering from psychotic reactions to bromocriptine.

Such findings do seem to support the dopamine theory of psychoses, albeit in a small way. Perhaps we should consider dopamine as similar to the stimulus that causes epileptic seizures. Thus those with 'epilepsy' have a very low threshold to having fits, yet most of us can be induced to have one if enough voltage is applied through cerebral electrodes. Likewise, given enough excess dopamine, whether