Book Review

The Mesolimbic Dopamine System: from maturation to action. P. Willner and J. Scheel-Kruger (Eds). pp. 674. John Wiley, Chichester. £80.00.

This book is based on papers presented to a conference in September 1989 on the meso-limbic system. It is an attempt to provide a coherent account of current views on the contribution of this cerebral system to normal and abnormal behaviour. The term meso-limbic was coined in 1970 by Ungerstedt to describe one of the dopamine based neuronal systems projecting from brainstem to limbic striatum and cortex. The experimental basis for this concept is animal work and this is reflected in most of the 24 chapters of the book. The concept, however, has obvious relevance to human behaviour and psychiatric disorder and this is dealt with in quite a few chapters which clinicians, especially with a research interest in behavioural neurology, would find relevant. The relevance of possible dysfunction of the meso-limbic system and ventral striatum, as "limbic-motor interface" to drug abuse, affective disorder and schizophrenia is considered.

In the last chapter, Fibiger adds a salutary note of caution about dopamine hypotheses of psychiatric disorders. Our understanding of these is primitive. They are hypothetical constructs. The same may be said of the meso-limbic system itself. The tendency to expect nature to conform to clinically derived concepts of normal and abnormal behaviour is exemplified by the sharp distinction drawn between meso-limbic and nigro-striatal dopamine systems. The temptation to see abnormality of the nigrostriatal system as subserving neurological and abnormality of the meso-limbic system as subserving psychiatric disorder is overwhelming despite considerable evidence, not really considered in any depth in this book, of abnormality of dopamine projection from brainstem to striatum and cortex contributing to a spectrum of disorders ranging from the clearly neurological to the clearly psychiatric. This is an instance where concepts can actually hinder rather than promote advance in knowledge.

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