Two steps forward, one step back: paradigmatic changes in psychiatry

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Summary. The initial scientification of psychiatry after the European discovery of psychotropic drugs via psychopharmacology and biological psychiatry has gradually ended in an impasse. As a result of at least four developments, psychiatry is re-orientating in a more dimensional and functional direction in order to adapt to the progress in the neurosciences. Rigid adherence to nosological systems should be replaced by a careful observation and description of psychopathology as well as a search for relevant psychological dysfunctions and their putative pathophysiological basis. Psychotropics have to be developed that do not suppress symptoms but promote potentially intact functions. Emphasis should be given to the brain mechanisms that are involved in habit formation and chronicity. Modern genetics will drive the discipline towards early intervention and prevention and will elucidate the relations between genetic disorders and the behavioural phenotype. The basis, however, remains clinical observation, dynamically reshaped by neuroscience.

Keywords: Functional psychopathology, mental retardation, personality disorders, gene expression.

Introduction

Halfway through the last century, no psychiatric taxonomy existed or better as many taxonomies existed as there were psychiatric textbooks. Diagnostic confusion was on the order of the day. Psychiatrists of the analytical persuasion tended to derogate classification altogether. A new era in psychiatry was heralded by the discovery of the psychotropic effects of chlorpromazine and imipramine that entailed the development of biological psychiatry and psychopharmacology. As Van Praag (1989) stated, symptoms regained their respectability being as they were the very targets of psychotropic drugs. Clusters of individual symptoms (syndromes) seemed to show sufficient internal con-
sistency to be neatly defined and to serve as units of classification in a taxonomy acceptable for the profession at large. This resulted in the development of the Research Diagnostic Criteria (RDC; Spitzer et al., 1978) and ultimately in the construction of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III, 1980). As a consequence, a process of scientification of psychiatry started. Research in psychiatry became focussed mainly on the selection of biological parameters that were supposed to underlie nosological categories and was externally driven by psychopharmacological developments. The latter were concentrated on the development of rating scales to measure symptomatological improvement, on strict adherence to the nosological constructs as indications for treatment and on extracellular permutations induced by psychotropics. Unfortunately, this materialized in a situation where diagnosis is secondary to treatment goals in order to have an “approved indication”. The rigid adherence to the nosological systems is thought to promote professional communication, but the question is urgent whether the applied vocabulary is adequate since it is composed of categorical terms that view psychiatric disorders as discrete entities, each with its own causation, symptomatology and course (Van Praag and Leijnse, 1965; Van Praag, 1993, 1997). This state of affairs has also led to the so called comorbidity problem which implies that a manifold of “diagnoses” can be attributed to the same patient (Verhoeven et al., 1999a) and to a fruitless search for biological markers of the various categories.

Over the past decade, at least four lines of development have inspired paradigmatic changes in psychiatry.

The first is the seemingly odd rediscovery of the brain as the organ where behaviour, emotion, motivation and psychopathology are generated. In this respect, Kandel (1998, 1999) elegantly described five maxims: all mental processes derive from operations in the brain; genes exert a significant control over behaviour; all “nurture” is ultimately expressed as “nature” via gene expression; initiation and maintenance of abnormal behaviour, induced by social contingencies, imply alterations in gene expression; all therapeutic strategies, when effective, involve structural changes in neuronal networks.

The second development is directly related to the progress in modern neuroimaging techniques and the new engagement between psychiatry and neurology yielding the neuropsychiatry as a specialization (Cummings et al., 1998; Price et al., 2000).

The third concerns the awareness that psychotropic drugs exert their influence not primarily through extracellular mechanisms but via altered signal transduction and gene expression (Post, 1992; Rupprecht and Holsboer, 1999).

The fourth emerges from the search for neurobiologically relevant functional disturbances, that are not automatically synonymous with psychiatric symptoms nor with the patients’ narrative (Van Praag et al., 1990; Paris, 1994; De Kloet et al., 1996). These dysfunctions may be disclosed in a variety of psychiatric syndromes like disturbed motivational behaviour or are hidden as yet by environmentally driven trait amplification or by the social conse-