

No more Surprises in Psychiatry?

Psychiatry has been late in becoming part of medicine. Unlike other branches of medicine and surgery that date their development back to prehistoric times, psychiatry had its beginnings - at least in the western world - only in the Renaissance period.

I intend to outline briefly the various theoretical and clinical breakthroughs, technical innovations and cultural paradigms that have been crucial in the history of psychiatry and to which I shall refer as "surprises." In this context the term surprise shall denote a sudden developmental change that is characterized by at least two of the following three criteria:

1. Unexpectedness;
2. Novelty, i.e. originality;
3. Rapid and sweeping acceptance on an almost global scale.

The first surprise occurred in 1409 when father Jofré, a priest in Valencia, Spain, on his way to celebrate mass one Sunday morning, encountered a group of people who were mocking and tormenting a person who was obviously mentally deranged. The priest was so moved by this that he delivered such a stirring sermon, the story goes, that enough money was collected from his parishioners to build the first asylum for the insane in the Western world. (The arabs had had such asylums for some time.) Thus, the church had assumed moral responsibility for a group of people - the mentally ill - who had been until then utterly disenfranchised and without protection. (Fits criteria 1 and 3.)

Johann Weyer's attack on the inquisition's witch hunting and witchburning was the second surprise. In 1563 he published a book *De Praestigis Daemonum* that courageously and convincingly discredited the then prevailing public notion that many people who exhibited unusual behaviour were possessed by demons or in league with the devil. He asserted that this was superstition and that most of these individuals were sick. His book had a wide distribution and affected a salutary change of the attitudes toward the mentally or emotionally disturbed.

The third surprise was Philippe Pinel's activism at the time of the French revolution, as he struck the chains off the mentally ill who had been housed in dungeon-like quarters at the Bicêtre in Paris. Until then it had been

generally assumed that all insane people were dangerous and that there was no way to influence them, except by violent treatments, such as blood-letting, emetics, startle-induced terror, etc. Pinel who wrote the first modern textbook of psychiatry and was in many ways the father of the effective "moral treatment" - milieu therapy, as we would call it today - thus accepted for medicine the therapeutic and scientific responsibility for all psychiatric patients, no longer leaving them solely as a moral responsibility to the church. He became, in effect, the first professional psychiatrist. (Fits criteria 1,2,3,)

Kraepelin's nosological breakthrough was the next surprise in psychiatry, during the last decade of the 19th century. At that time there were in Germany more than 80 different psychiatric diagnoses around, in most confusing configurations. Leading experts had declared that the only hope for ever getting out of this chaos was to do away with all classifications in psychiatry and to recognize just one unitary psychosis. Kraepelin, however, presented psychiatry unexpectedly with a simple and clear new classification and, although at first meeting with heated controversy, this new classification soon was accepted world-wide. It is, somewhat modified, still the basis of today's working nosology. (Fits criteria 2 and 3.)

Almost at the same time in fact precisely at the turn of the century (in the year 1900) Sigmund Freud published his classic Interpretation of Dreams, which he considered to be

the royal road to the unconscious. For the first time in history there was now a comprehensive theory to explain madness - the nightside of the mind - to make the incomprehensible comprehensible. Thereafter psychoanalysis rapidly swept the world not only as a psychiatric theory and technique but as a new cultural paradigm. (Fits criteria 1,2,3.)

The sixth surprise came right after world war I when the Austrian psychiatrist Wagner-Jauregg developed the malaria treatment for dementia paralytica. This mental disease, caused by syphilis, had left its victims demented and, almost always, was eventually fatal. Now, there was for the first time in psychiatry an effective cure for a devastating mental disease. Wagner-Jauregg received the Nobel prize for his discovery, the first - and so far the only - psychiatrist to be so honored. (Fits criteria 1,2,3,.)

The discovery of the electroencephalogram by Hans Berger was the next surprise. Berger had reported his discovery in the late 1920s, but he was not believed and nobody even bothered for some years to try confirming or refuting his findings. When the English physiologist Adrian finally confirmed Berger's discovery, the world was amazed that continuous messages from the living brain could be recorded. For some time it was hoped that the electroencephalogram (EEG) might become the royal road to all of psychiatry - a hope that until today has not been realized. (Fits criteria 1,2,3,.)

The eighth surprise was Manfred Sakel's introduction of

insulin-induced coma therapy for schizophrenia in the mid - 1930s. This was the first treatment that had ever had any effective impact on positive symptoms of acute schizophrenia. Like malaria treatment for dementia paralytica it was an unspecific shock therapy and, like the former, it is no longer used today. (Fits criteria 2 and 3.)

Ladislav Meduna's demonstration of the therapeutic effects of drug-induced convulsions on schizophrenia and depression was the next surprise. It followed almost immediately the advent of Sakel's coma treatment. Within a few years Cerletti and Bini developed the electroconvulsive technique, and in this form convulsive therapy has remained an effective treatment for depression until today. (Fits criteria 2 and 3.)

In 1943 Albert Hoffman discovered by serendipity the powerful psychotomimetic (hallucinogenic) action of lysergic acid diethylamide (LSD). Other hallucinogens, e.g. mescaline, were already known, but the ready production of "model psychoses" that this new, synthetic substance made possible was immediately hailed as a significant, potential inroad to the biochemical substrate of schizophrenia and soon became the subject of world-wide research activity. (Fits criteria 1 and 3)

The next surprise was the therapeutic breakthrough of the antipsychotic drugs that Jean Delay and Pierre Deniker achieved in 1951. Even one year before their discovery the idea of a pill that could specifically eliminate hallucinations, delusions and thought disorder would have sounded like an utopian dream or a science fiction scenario. Suddenly it had become reality,

and with it the indirect demonstration of an essentially biological substrate of the functional psychoses - a concept that ran counter to the most widely held theories at that time. (Fits criteria 1,2,3,.)

This was the last surprise in psychiatry connected with the names of individuals. The next two surprising developments were movements initiated by groups that sponsored causes. Two such movements fit the criteria for surprises. They were de-institutionalisation and antipsychiatry.

The first could have been the logical consequence of antipsychotic drug therapy; however, it became, in the 1950s, an almost irrational, activist movement that - in the name of liberation from institutional incarceration - rapidly led - at least in North America - to wholesale dumping of tens of thousands of mentally disabled persons into an uncaring society that was in no way prepared to accept them. (Fits criteria 1 and 3.)

The second movement - antipsychiatry - was not original. It had existed sporadically in a few places in Europe during the last century but had never found wide acceptance. Then, in the 1960s, antipsychiatry suddenly became the rallying cry of some academic sociologists, a few vocal psychiatrists and many libertarians of all descriptions. (Fits criteria 1 and 3)

The last three surprises are completely depersonalized. Their cores were new instruments. In the 1960s, computers opened new vistas and novel modes of thinking in psychiatry, where numbers had previously never played a significant role. (Fits criteria 1,2,3,)

At about the same time, the introduction of chromatography and related techniques made it possible to identify a host of new protein components and other biological substances. This created a revolution in the neurosciences and, consequently, a fundamental change in the perspectives of psychiatry. (Fits criteria 1,2,3.)

Finally, the dramatic new imaging techniques - computerized tomography (CT); regional cerebral blood flow imaging (rCBF); positron emission tomography (PET); magnetic resonance imaging (MRI); topographic electroencephalographic mapping - have captured the imagination of psychiatrists to such an extent that these fascinating techniques virtually threaten to alienate psychiatrists from their living and suffering patients. (Fits criteria 1,2,3.)

The last ten surprises in psychiatry all having occurred, ever more rapidly, in the last seventy years, the question may be posed: Are there still other real surprises possible, or have we exhausted the repertoire and have become so sophisticated in our expectations that any future breakthroughs will no longer surprise us but will simply be considered improvements that we had expected to occur sooner or later anyway? Are there no more surprises in the future of psychiatry?