Catatonia

Catatonia is a syndrome of motor dysregulation (mutism, characteristic postures, repetitive speech, negativism, and imitative movements), and is found in as many as 10% of acutely ill psychiatric inpatients. Although its classification has been controversial, the identification of catatonia is not difficult, but it is often missed, leading to the false notion that the syndrome is rare. Catatonia has various presentations, and may be caused by many neurologic and general medical conditions, most commonly mood disorder. Treatments are well defined, and when used, catatonia has an excellent prognosis.

This book, by two leading neuropsychiatrists, describes the features of catatonia, teaches the reader how to identify and treat the syndrome successfully, and describes its neurobiology. Patient vignettes from the authors' practices, and many from the classical literature, illustrate the principles of diagnosing and treating patients with catatonia. It is an essential clinical reference for psychiatrists and neurologists.

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A Clinician's Guide to Diagnosis and Treatment

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Contents

Patient vignettes

Preface

Few phenomena in psychiatry or neurology are as enigmatic as catatonia. This is a fact in large part due to the many contradictions surrounding the concept. Catatonia has been described as a disease, but also as a syndrome. It has been considered to be a subtype of schizophrenia, and yet has been claimed to be more common in affective disorders. It has been reported to be both caused and ameliorated by neuroleptic drugs. It has been reported to represent a state of stupor so profound that its sufferers die from medical complications, and has also been reported to represent a state of excitement so marked that physical restraints are necessary. (Lohr and Wisniewski, 1987: 201)

Catatonia is a cluster of motor features that appears in many recognized psychiatric illnesses. The classic signs are mutism, a rigid posture, fixed staring, stereotypic movements, and stupor. Catatonia was initially described in the first half of the 19th Century, but its name and our ideas about it are credited to the German psychopathologist Karl Ludwig Kahlbaum.[1] In psychiatric disease classifications (such as the American Psychiatric Association's Diagnostic Statistical Manual and the World Health Organization's International Classification of Diseases), catatonia is traditionally linked to schizophrenia (American Psychiatric Association, 1952, 1980, 1987, 1994; World Health Organization, 1992). Today, however, we recognize that catatonia consists of identifiable and quantifiable motor signs that are part of a broad psychopathology that includes most of the major diagnostic classes. It is a syndrome that warrants consideration and recognition in its own right. Its many forms have been given numerous labels, but they likely reflect a common pathophysiology.

The limited association of catatonia to a subtype of schizophrenia, with the negative prognosis and treatment implications that schizophrenia evokes, serves catatonic patients poorly. Catatonia is often benign and transient, but we find instances of such severity that the outcome is fatal. Such results

are tragic because catatonia is eminently treatable when it is recognized. We describe the different forms of catatonia, offer guides to its recognition and to its treatment, and seek to explain its origins within our present-day concepts of brain organization, physiology, and chemistry. We seek to enhance its appreciation as a separate category in our psychiatric classification systems.

One of us (MAT) described catatonia as a feature of mania and brought this forgotten association to professional attention in the mid-1970s.[2] His interest was stimulated by a 63-year-old woman in manic delirium who intermittently postured and showed several other catatonic features. She recovered with lithium carbonate treatment. MAT subsequently delineated the signs, neuroanatomy, and pathology of catatonia, and developed a neurologic model of the syndrome. He described the neuropsychiatric examination for students and has written several textbooks of neuropsychiatry.[3]

The interest of the other author (MF) was aroused in 1987 by a patient with lupus erythematosus who had been mute, rigid, and negativistic within a manic illness. After much travail, she recovered with electroconvulsive therapy.[4] This experience stimulated studies of many aspects of catatonia.[5]

When the American Psychiatric Association announced a Task Force for DSM-IV in 1990, we joined together in a plea to recognize catatonia as a unique entity, akin to the classification of delirium and dementia. We presented our image of catatonia in a challenging article *Catatonia: A separate category for DSM-IV.*[6] The Task Force members maintained catatonia as a variant of schizophrenia but added new options: *Catatonic Disorder Due to . . . [Indicate the General Medical Condition]* with the code 293.89, and catatonia as a modifier of mania.[7]

As founding editors of specialty psychiatric journals, *Neuropsychiatry, Neuropsychology, and Behavioral Neurology*, and *Convulsive Therapy*, we read reports of catatonic patients that had been poorly diagnosed and inadequately treated. In 1998, we joined together to describe our experience and to present the evidence to justify greater consideration of catatonia in clinical practice.

We make the following points in this book. Catatonia and catatonic features are easily recognizable. Catatonic features are not rare phenomena but occur, several or more together, in about 10% of acutely hospitalized psychiatric patients. The features of catatonia reflect diverse brain disorders, most commonly mood disorder. Catatonia, even in its full form, is highly responsive to treatment despite the chronicity of an underlying condition.

"Responsive to treatment but often unrecognized" is a formula for clinical tragedy. We write to help physicians identify the syndrome and to treat it effectively. We write for neurologists and psychiatrists working in emergency rooms, hospital in-patient units, and consultation services. Because it expands the usual teaching texts emphasizing a readily recognizable and treatable syndrome, it should interest resident physicians and medical students. For researchers seeking homogeneous groups of patients, catatonia has a distinct psychopathology that makes it an effective and heuristic model for study.

Over the two centuries during which catatonia has been described, psychiatric terminology has changed many times. With each official Diagnostic Statistical Manual, terms are dropped (e.g., neuroses) and new ones added (e.g., body dysmorphic disorder). Well-established syndromes are given new labels the way fashion changes. Manic-depressive illness became bipolar disorder. Bipolar disorder became affective disorder, and then mood disorder. Because the old term *manic-depressive illness* is more consistent with the pre-1980 literature, and because we honor the descriptive psychiatrists who still have much to teach us, we use the older terms. We use *manic-depressive illness* for the syndrome and *mood disorder* as its descriptor, *antipsychotic* rather than neuroleptic, and *unipolar depression* rather than major depressive disorder, recurrent type. Because the mind–body dichotomy is artificial and the concept "organic" has been dropped from the DSM because all behavioral syndromes reflect brain events and are, *ipso facto*, "organic", we do not use that term or terms that reflect that notion, i.e., mental. Instead we use the terms *psychiatric* and *behavioral*.

Another convention is the term for the lethal form of catatonia. Authors define a virulent form of the illness as *lethal, malignant,* or *pernicious*. Because we can now treat the syndrome successfully and the mortality rate is much lower, we use the term *malignant catatonia* (MC). Many toxic syndromes, characterized by the main signs of MC, have been given individual names; we suggest that these be lumped together as examples of MC. We approach the neuroleptic malignant syndrome as one such toxic syndrome that is indistinguishable from MC and refer to it as *NMS* (*neuroleptic malignant syndrome*) when citing the work of other authors and as *MC/NMS* in our work.

In addition to patient vignettes that come from our clinical experience, we abstract examples from other authors. In writing each summary, we sought to

present the essential relevant findings from the original report. The language is our own except where the original author's work is in quotations or italics.

References, in most instances, and additional comments are cited as endnotes in numerical order. The lists appear at the end of each relevant chapter. An overall alphabetized reference list appears at the end of the volume.

Undoubtedly there are idiosyncrasies in this book, and certainly there are strong opinions in it. But not to have strong opinions after two lifetimes of clinical experience would suggest time wasted. Readers may not agree with all that we have written, but we hope to invigorate their interest and appreciation of catatonia. If we accomplish that, patients will surely benefit.

Max Fink, M.D.
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ENDNOTES

1 Kahlbaum, 1874; English translation 1973.
2 Taylor, 1990; Taylor and Abrams, 1973, 1977, 1978; Abrams and Taylor, 1976, 1979; Abrams, Taylor and Stolurow, 1979.
3 Taylor 1981, 1992, 1993, 1999, 2001.
4 Fricchione et al., 1990.
5 Systematic studies of catatonia at SUNY at Stony Brook began in 1987 with the publication of a case report describing the relief of a patient with lupus erythematosus who exhibited catatonia and mania (Fricchione et al., 1990) (*Patient 3.5*). In short order, a retrospective 5-year survey of patients diagnosed as suffering with schizophrenia, catatonic type, found 20 patients with most having concurrent diagnoses of mood disorders (Pataki et al., 1992). The studies, summarized in Petrides and Fink (2000), are published as Fink and Taylor, 1991; Fink, 1992a, 1994, 1996a,b,c, 1997a,b, 1999a; Fink and Francis, 1992; Pataki et al., 1992; Fink et al., 1993; Bush et al., 1996a, b; Francis et al., 1996, 1997; Bush et al., 1997; Fricchione et al., 1997; Petrides et al., 1997; Koch et al., 2000; Petrides and Fink, 2000.
6 Fink and Taylor, 1991.
7 American Psychiatric Association, 1994: 278–279, 382–383.

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This book is dedicated to our patients and their families, whose faith in our efforts to help them allowed us to learn much about catatonia.

Chronology of catatonia concepts

Catatonia in psychopathology

1583	*Barrough*	"*Of Congelation*": depressive stupor and frenzy
1663	*Bayfield*	Catalepsy
1815	*Bakewell*	Negativism in manic patients
1850	*Monro*	"Cataleptoid insanity"
1863	*Kahlbaum*	*Die Gruppierung der psychischen Krankheiten und die Einteilung der Seelenstörungen.* Catatonia as a syndrome
1874	*Kahlbaum*	*Die Katatonie oder das Spannungsirresein.* The classic formulation
1877	*Kiernan*	Confirms Kahlbaum's syndrome in USA
1896	*Kraepelin*	Catatonia as a subtype of dementia praecox; psychodynamic explanation
1898	*von Schüle*	Catatonia subtypes; Kraepelin's formulation rejected
1898	*Aschaffenburg*	Dementia paralytica and catatonia separated
1912	*Urstein*	Kraepelin's restrictive formulation rejected
1913	*Kirby*	Catatonia frequent in manic-depression
1922	*Lange*	Catatonia more frequent in manic-depressive patients
1924	*Bleuler*	Dementia praecox relabeled schizophrenia; catatonia as subtype. A psychodynamic formulation of catatonia
1928	*Kleist*	Cycloid psychosis
1942	*Leonhard*	Comprehensive classification
1969	*Pauleikhoff*	Centennial anniversary of Kahlbaum's book; defines five forms of Kahlbaum's syndrome
1973	*Taylor, Abrams*	Catatonia prevalent in mania
1975	*Morrison*	Catatonia in 10% of psychotic population (Iowa 500 study)
1976	*Abrams & Taylor*	Mania and depression prevalent in manic patients
1981	*Mahendra*	Where have all the catatonics gone?

Diagnostic classification of catatonia

1874	*Kahlbaum*	*Die Katatonie oder das Spannungsirresein.* Syndrome with good prognosis, many etiologies
1896	*Kraepelin*	Catatonia as a subtype of dementia praecox; psychodynamic explanation of catatonia
1924	*Bleuler*	"Dementia praecox" becomes "schizophrenia," with catatonia as subtype. Accepts psychodynamic formulation of catatonia
1952	*APA DSM-II*	Catatonia as reaction type in schizophrenia
1980	*APA DSM-III*	Catatonia as subtype of schizophrenia
1987	*Lohr & Wisniewski*	Catatonia rating scale
1991	*Rogers*	Neurologic formulation of catatonia; new rating scale
1991	*Fink & Taylor*	Catatonia as a syndrome, not schizophrenia subtype
1994	*APA DSM IV*	Catatonia as schizophrenia subtype; secondary to medical conditions (293.89); and modifier of affective disorders
2001	*Fink & Taylor*	Many faces of catatonia

Malignant catatonia, neuroleptic malignant syndrome, delirious mania

1849	*Bell*	Delirious mania with catatonia
1934	*Stauder*	*Die tödliche Katatonie.* Malignant catatonia (MC).
1950	*Bond*	Describes delirious mania; lithium treatment
1950	*Meduna*	*Oneirophrenia*
1952	*Arnold & Stepan*	Electroconvulsive therapy (ECT) for MC
1960	*Delay*	*Syndrom malin* – neuroleptic toxic syndrome
1973	*Meltzer*	Neurotoxic syndrome secondary to depot fluphenazine
1976	*Gelenberg*	Catatonia as neurotoxic syndrome
1980	*Caroff*	"neuroleptic malignant syndrome"
1989	*Rosebush*	Neuroleptic malignant syndrome (NMS) a subtype of malignant catatonia
1991	*White*	NMS is malignant catatonia
1999	*Fink*	Delirious mania; efficacy of ECT

Catatonia treatment

1930	*Bleckwenn*	Amobarbital treatment of catatonia
1934	*Meduna*	Convulsive therapy for catatonia
1938	*Cerletti & Bini*	Electroconvulsive therapy of mania, psychosis
1950	*Bond*	Lithium treatment for delirious mania

1952	*Arnold & Stepan*	ECT for malignant catatonia
1983	*Fricchione*	Lorazepam treatment of toxic and psychogenic catatonia
1983	*McEvoy & Lohr*	Diazepam treatment of catatonia
1989	*Rosebush*	NMS as subtype of MC
1999	*Fink*	ECT for delirious mania

Other aspects of catatonia

1901	*Regis*	Oneiroid state (*Le delire onirique*)
1921	*Hoch*	*Benign Stupors.* Clinical review of retarded catatonia
1930	*de Jong & Baruk*	Experimental catatonia, bulbocapnine in cats
1932	*Gjessing*	Periodic catatonia; endocrine studies
1941	*Cairns*	Akinetic mutism
1962	*Sours*	Akinetic mutism and catatonia
1982	*Insel*	Toxic serotonin syndrome
1995	*Stöber*	Genetic basis for periodic catatonia
2001	*MacKeith*	London Conference on catatonia in childhood disorders