Classification of Mental Disorders

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Classification

„the activity of ordering or arrangement of objects into groups or sets on the basis of their relationships”

Sokal R.R.(1974) Science, 185:115-123

Classification

„procedure for constructing groups or categories and for assigning entities (disorders or persons) to these categories on the basis of their shared attributes or relations”

Millon T.(1991) J. Abnorm.Psychol., 100:245-261

The fundamental purpose of diagnosis and classification

To isolate a group of discrete disease entities, each of which is characterized by a distinct pathophysiology and/or etiology

Ideally: all diseases in medicine would be defined in terms of etiology

In practice: for most illnesses, we do not know or understand the specific etiology

Units of Classifications

- Diseases?
- Disorders?
- Syndromes?

In psychiatry

most of the disorders or diseases diagnosed are syndromes

syndroma

collections of symptoms that tend to appear together

and that seem to have a characteristic course

and outcome

Purposes of diagnosis in psychiatry

- help to **simplify** our thinking and reduce the complexity of clinical phenomena
- facilitate **communication** between clinicans (concisely summarizes information for all other clinicians)
- help to predict the **outcome** of the disorder
- decide on an appropriate **treatment**
- assist in the **search** for pathophysiology and etiology

Other purposes of diagnosis

Diagnoses are used

- to monitor treatment
- to make decisions about insurance coverage
- by attorneys in malpractice suits and in other litigation
- by health care epidemiologists to determine the incidence and prevalence of various diseases throughout the world

History

- in 5th century BC Hippocrates introduced the terms mania and hysteria as forms of mental illness
- the first U.S. classification was introduced in 1869
- in 1952 the American Psychiatric Association published the first edition of DSM (DSM I)
- Five editions have been published since then, the latest: DSM-TR in 2000

Karl Jaspers (1883-1969)

Classification of mental disorders

- ***True diseases*** **(like general paresis), which have clear boundaries among themselves and with normality.**
- ***Circles*** **(like manic-depressive insanity and schizophrenia), which have clear boundaries with normality but not among themselves.**
- ***Types*** **(like neuroses and abnormal personalities), which do not have clear boundaries either among themselves or with normality.**

General Psychopathology **(1913)**

Ways of classification

- Categories based on **mathematical-statistical analyses** (Feighner, ICD, DSM, Kendler, McIntosh, McGorry)
- **Natural** classification (Kahlbaum, Leonhard, Sznyezsnyevszkij)

The two most important **current** psychiatric classifications

DSM-IV-TR (Diagnostic and Statistical Manual of the American Psychiatric Association, Text Revision, Fourth Edition, **2000**)

- **ICD-10** (International Statistical Classification of Diseases and Related Health Problems, Tenth Edition, **1992**)

- All categories used in **DSM-IV-TR** are found in **ICD-10**, but not all **ICD-10** categories are in **DSM-IV-TR**.

International Classification of Diseases (ICD)

- developed by the World Health Organization
- used in Europe, Africa and Asia
- comprehensive classification of all „diseases and related health problems”
- basis of obligatory report to WHO on morbidity data

International Classifications of Psychiatric Disorders

WHO publishes volumes since 1900 for statistical purposes: ICD (International Classification of Diseases)

1. ICD -6 (**1948**): mental disorders - subsection
2. ICD -8 (**1968**): few-sentence descriptions organic-functional
   } dichotomy
   psychotic-neurotic

DSM (Diagnostic and Statistical Manual of Mental Disorders)

- developed by the American Psychiatric Assotiation
- is the official psychiatric coding system used in the United States and for research purposes worldwide

Diagnostic and Statistical Manual of Mental Disorders

- **DSM-I. 1952.**

- Based on the codes of the psychiatry chapter of the ICD-6
- Was heavily under the influence of **Adolf Meyer.** It referred to most conditions as „reactions ”

DSM-II.

- **1968**
- Aim: objective clinical descriptions instead of theoretical conceptions
- Result: partial
  Clinically similar syndroms differ according to the ***hypothetical*** etiology

Multiaxial Evaluation

- characterizes each patient in multiple ways
- evaluates all aspects of the patient's health and social background

Multiaxial system of DSM-IV-TR

- **Axis I.** Clinical disorders and other disorders that may be a focus of clinical attention
- **Axis II.** Personality disorders and mental retardation
- **Axis III.** General medical conditions
- **Axis IV.** Psychosocial and environmental problems
- **Axis V.** Global Assessment of Functioning (GAF) Scale

AXIS I.

Disorders usually diagnosed in infancy, childhood, or adolescence

Delirium, dementia and other cognitive disorders

Mental disorder due to a general medical condition

Substance-related disorder

Schizophrenia and other psychoses

Mood disorders

Anxiety disorders

Somatoform disorders

Factitious disorders

Dissociative disorders

Sexual and gender identity disorders

Eating disorders

Sleep disorders

Impulse-control disorders

Adjusment disorders

Other conditions that may be focus of clinical attention

AXIS II.

Personality disorders and mental retardation

Paranoid
Schizoid
Schizotypal
Antisocial
Borderline
Histrionic
Narcissistic
Avoidant
Dependent
Obsessive-compulsive

Personality disorder not otherwise specified

Mental retardation

AXIS III. : General medical conditions

- Infectious and parasitic diseases
- Neoplasms
- Endocrine,nutritional, and metabolic diseases and immunity disorders
- Diseases of the blood and blood-forming organs
- Diseases of the nervous system and sense organs
- Diseases of the circulatory system
- Diseases of the respiratory system
- Diseases of the digestive system
- Diseases of the genitourinary system
- Complications of pregnancy, childbirth, and the puerperium
- Diseases of the skin and subcutaneous tissue
- Diseases of the musculoskeletal system
- Congenital anomalies
- Certain conditions originating in the perinatal period
- Symptoms, signs, and ill-defined conditions
- Injury and poisoning

AXIS IV.
Psychosocial and environmental problems

Problems with primary support group

Problems related to the social environment

Educational problems

Occupational problems

Housing problems

Economic problems

Problems with access to health care services

Problems related to interaction with the legal system/crime

Other psychosocial and environmental problems

AXIS V.
Global Assessment of Functioning (GAF) Scale

100: Superior functioning in a wide range of activities. No symptoms.

60: Moderate symptoms, or moderate difficulty in social, occupational, OR school functioning

10: Persistent danger of severely hurting self or others OR persistent inability to maintain minimal personal hygiene

Current classification systems

- „descriptive”

- define the pathology in terms of clinical signs or symptoms and formulate them as **operational diagnostic criteria**

Descriptive approach

- atheoretical with regard to causes
- attempts to describe the manifestation of the mental disorders
- rarely attempts to account for how the disturbances come about

Diagnostic criteria

- a **list of features** that must be present for the diagnosis to be made
- such criteria **increase the reliability** of the process of diagnosis

Systematic description

- Specific age-, culture-, and gender-related features
- Prevalence, incidence, and risk
- Course
- Complications
- Predisposing factors
- Familial patterns
- Differential diagnosis
- Laboratory findings and assotiated physical examinationsigns and symptoms

BUT

DSM-IV-TR IS NOT A TEXTBOOK

Diagnostic uncertainties

- when the information is insufficient
- when the patient's clinical presentation and history do not meet the full criteria of a prototypical category

Special forms of diagnosis

- **Multiple** diagnosis (principal diagnosis)
- **„Provisional”** diagnosis
  -uncertainty
  -diagnosis depends on the duration of illness
- „not otherwise specified” **(NOS)**
  - the symptomps are below the diagnostic threshold
  - there is an atypical or mixed presentation
  - the cause is uncertain (i.e. whether it is primary or secondary)

Severity of disorder

- Mild
- Moderate
- Severe
- Partial remission
- Full remission

Advantages of the DSM system

- has improved the reliability of diagnosis
- has clarified the diagnostic process and facilitated history taking (structured approach is an excellent teaching tool)
- has clarified and facilitated the process of differential diagnosis (because it is so explicit)

Disadvantages of the DSM system

- the available data are often inadequate, selection is often arbitrary
- diagnosis is no more than a checklist and we forget about the patient as a person
- it sacrifices validity for reliability

What is DSM?

- DSM is published by the American Psychiatric Association (APA)
- contains descriptions, symptoms, and other criteria for diagnosing mental disorders
- these criteria for diagnosis provide a common language among clinicians – professionals who treat patients with mental disorders.

What is DSM?

- by **clearly defining** the criteria for a mental disorder, DSM helps to ensure that a **diagnosis is both accurate and consistent**;

for example: a diagnosis of schizophrenia

- is consistent from one clinician to another
- means the same thing to both of these clinicians, whether they reside in the U.S. or other international settings.

How is DSM used?

appropriately using the diagnostic criteria found in DSM

requires

- **clinical training**
- **thorough evaluation and examination of an individual patient.**

Another important role of DSM

establish criteria for diagnosis can be used in research on psychiatric disorders

only by having consistent (reliable) diagnoses can researchers

- compare different treatments for similar patients,
- determine the risk factors and causes for specific disorders
- determine their incidence and prevalence rates.

DSM disorders are also used

- as the basis for treatment indications by the FDA or and for clinical Practice Guidelines.
- DSM diagnoses are linked to the diagnostic codes listed in the International Classification of Diseases used by clinicians to report diagnoses to insurers for reimbursement, and to public health authorities for causes of illness and death.

Information about treatment?

- DSM contains no recommendations on what that course of treatment should be
- determining an accurate diagnosis is a first step for the clinician in defining a treatment plan for a patient
- DSM is certainly important to those who provide treatment to patients with mental illness, because **accurate diagnosis leads to appropriate treatment.**

Why is DSM being revised?

- DSM has been periodically reviewed and significantly revised since the publication of DSM-I in 1952. Particularly over the past two decades, there has been a wealth of new information in neurology, genetics and the behavioral sciences that dramatically expands our understanding of mental illness.

Why is DSM being revised?

- researchers have generated a wealth of knowledge about the prevalence of mental disorders, how the brain functions, the physiology of the brain and the lifelong influences of genes and environment on a person's health and behavior.
- the introduction of scientific technologies, ranging from brain imaging techniques to sophisticated new methods for mathematically analyzing research data, have given us new tools to better understand these illnesses.

www.dsm5.org

the draft revisions are now available for public review and comment

for more information about the development process visit the site

www.dsm5.org

What are the dimensional assessments that are being considered for DSM-5?

- One challenge in accurately diagnosing mental disorders is to evaluate the range of symptoms and other factors that appear in a single patient. In the earlier versions of DSM, disorders were described and arranged by **category**, with a specific list of symptoms for each mental illness

What are the dimensional assessments that are being considered for DSM-5?

- The categorical syndromes do not always fit with the reality of the **range of symptoms** that individuals' experience.

- As the criteria for diagnosis are "yes/no" (does the individual have this disorder or not?), in most cases there is **no method** in DSM-IV to account **for the severity of the disorder**, and thus no specified way to determine if the patient is improving with treatment.

What are the dimensional assessments that are being considered for DSM-5?

- The DSM-5 Work Groups are now considering an additional way to help the clinician capture the symptoms and severity of mental illnesses - by using **dimensional assessments.**
- These would allow clinicians to rate both the **presence and the severity** of the symptoms, such as “very severe,” “severe,” “moderate” or “mild”. By this rating they could also track a patient’s **progress** on treatment, allowing a way to note improvements even if the symptoms don’t disappear entirely.

What are the dimensional assessments that are being considered for DSM-5?

For example, information about

- depressed mood
- anxiety level
- sleep quality
- substance use, etc.

would be important for clinicians to know regardless of the patient's diagnosis

Methods of natural classification

- Observation – behavioural symptoms are put to the foreground
- Evaluation of general image („Gestalt” – Klaus Conrad)
- Empirical generalisation of descriptive clinical psychiatry

These methods are the most important features of the Wernicke-Kleist-Leonhard pathway

Kleist, Leonhard, Angyal, Pethő

- Orientation to brain pathology
- Schizophrenia is a heterogeneous illness, with various subgroups

Karl Leonhard (1904-1988)

1957 The classification of the Endogenous Psychoses (The Aufteilung der endogenen Psychosen)

On the basis of many years of longitudinal research on outcome and family history he demonstrated that **unipolar** („monopolar”) depression and **manic-depressive illness** are different diseases.

Wernicke-Kleist-Leonhard pathway

Classifying psychotic illness not on the basis of outcome (as Kraepelin did), but on the basis of hypothetical underlying **neurological impairment** or **common family history**.

Unit of illness

- Same etiology

- Same cross-sectional image
- Same course
- Same outcome

- Same histological alteration

About the Leonhard system

Frank Fish :

”The Leonhard system is not easy to use.”

The system called for the **very careful observation** of the patients and the ability to discern small differences among the subcategories.

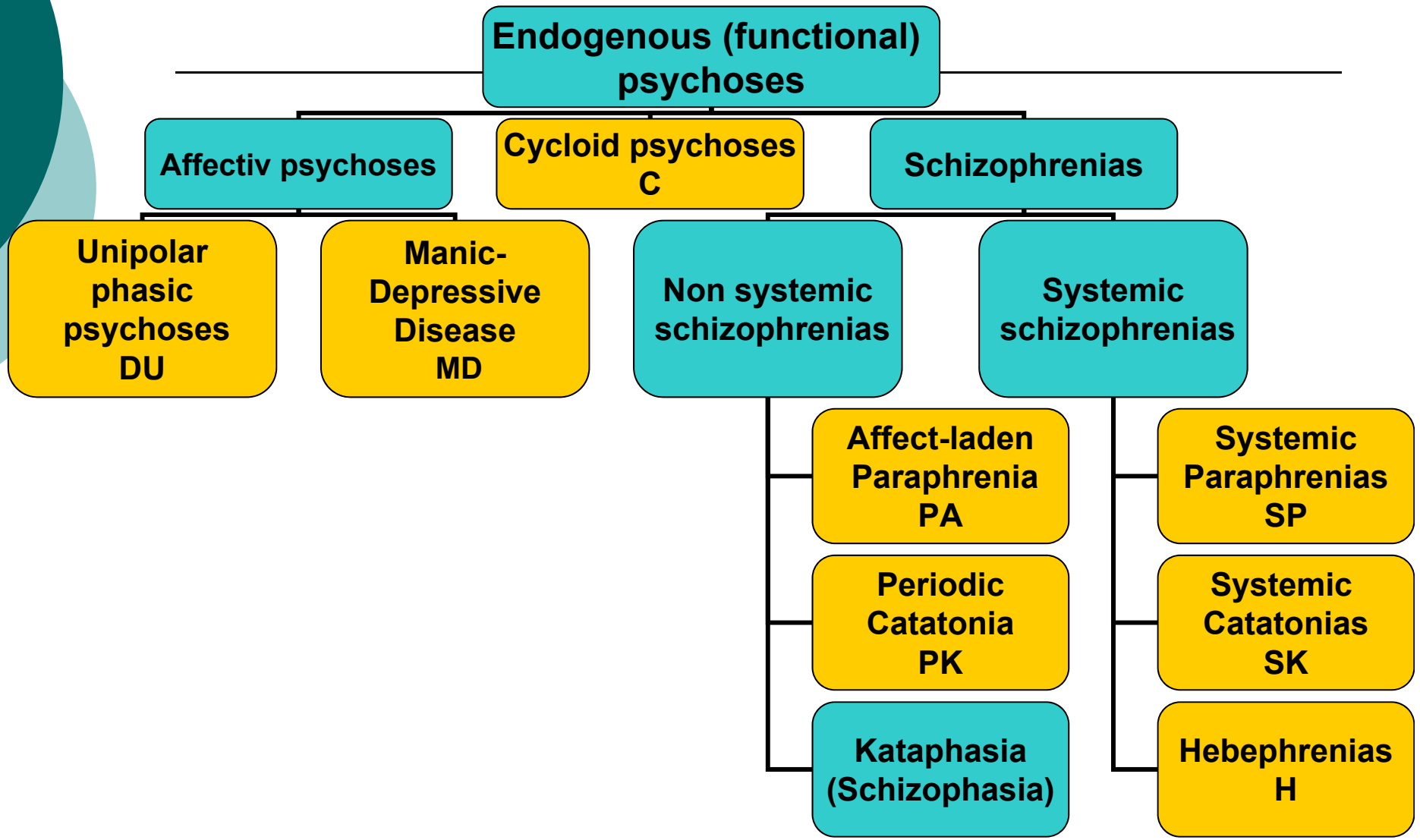
Gábor Ungvári (1993, Biological Psychiatry):

„His diagnoses imply **prognostic prediction**, that is, they are true life-time diagnoses. This „backward” direction of his classification system enabled Leonhard to identify the most persistent signs and symptoms as characteristics of a particular subtype during its natural history.”

Three great groups of ”endogenous psychoses”

1. The affective (phasic) psychoses
2. The cycloid psychoses (including motility psychoses)
3. The schizohrenic psychoses
   - non-systemic: fluctuating severity and symptom picture
   - systemic: the symptoms underwent no marked change once established

Leonhard' classification



DU	Unipolar phasic psychoses
MD	Manic-Depressive Disease
C	Cycloid psychoses
PA	Affect-laden Paraphrenia
KP	Periodic catatonia
SP	Systemic paraphrenias
SK	Systemic catatonias
H	Hebephrenias
NK	Normal control group

Cycloid psychoses

- Anxiety-happiness psychoses
- Excited-inhibited confusion psychoses
- Hyperkinetic-akinetik motility psychosis

- Complete recovery from each phase

Non-systemic schizophrenias

- Affect-laden Paraphrenia
- Periodic catatonia
- Cataphasia (Schizophasia)

- much closer to cycloid psychoses than systemic sch.
- fluctuating symptom picture
- bipolarity
- fluctuating severity (remission-periodic course)

Systemic schizophrenias

- Systemic paraphrenias
- Systemic catatonias
- Hebephrenias

- in early stages accesory symptoms, however the defect syndrom is in the foreground from onset
- the symptoms underwent no marked change once established

Possible manifestations of psychiatric disorders

- Symptoms of experience

  (hallucinations, delusions, anxiety)

- Symptoms of behavior
- Maladjusment of social adaptation
- Decrease of productivity

Behavior suggests psychiatric disorder, if …

- it is not in accordance with social norms
- it is not in accordance with personal habits and motivations
- cannot be understood on the basis of previous personality traits

Persons to discover the illness in everyday life:

- parents
- spouse
- teachers
- colleauges
- GP (general practicioners)
- pharmacologists
- policemen
- lawyers
- priests
- etc.

Psychosis:

loss of reality control

Psychoses according to etiology

Organic: known somatic illness in the background

- **Exogenous:** known drug in the background
- **Reactive:** understood from special situations, psychic experiences
- **Endogenous**

„ENDOGENEOUS”:

- Non organic/somatic
- Non exogenous
- Non psychic

„inner” origin

Differential diagnosis of schizophrenia

„Functional”	„Organic”
Schizotypal disorder	Drug/substance-induced psy
Persistent delusional disorders	Epilepsy
Schizoaffective disorders	Tumors
Induced delusional disorder	Stroke
Mania	Early dementia
Depression	Endocrine causes
	Infections
	Multiple sclerosis
	Autoimmune disorder (SLE)
	Metabolic disorders

Schizophrenia

„The psychopathology of schizophrenia is one of the most intriguing, since it permits a many-sided insight into the workings of the diseased as well as the healthy psyche”

Eugen Bleuler

No two cases are ever exactly the same

Benedict-Augustin Morel
(1809-1873)

First use **„premature dementia”**
(in the nineteenth century meaning of incoherence rather than low intelligence)

The first psychiatrist to classify
- psychotic
- illnesses on the basis of outcome rather
- than clinical presentation at a given moment

Diagnoses considered different, yet with similar courses of illness

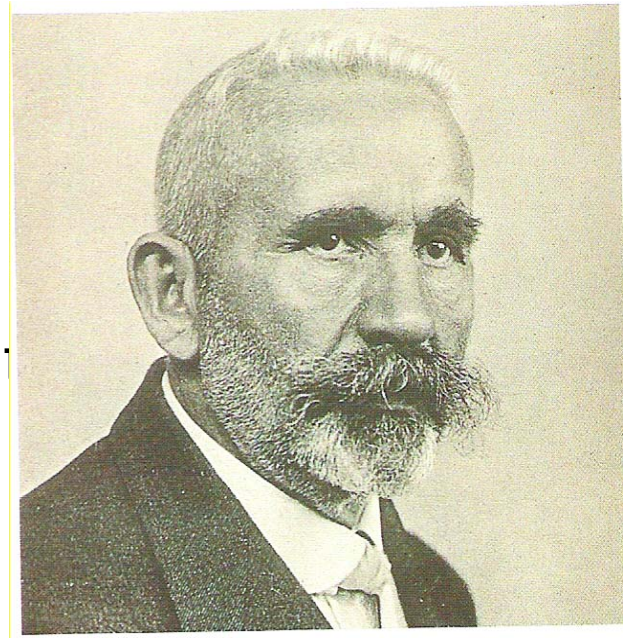
- Mendel: Paranoia (1884)
- Kahlbaum: Catatonia (1868-1874)
- Hecker: Hebephrenia (1871)

Emil Kraepelin (1856-1926)

dementia praecox (1893)

onset at a relatively early age

chronic and deteriorating course



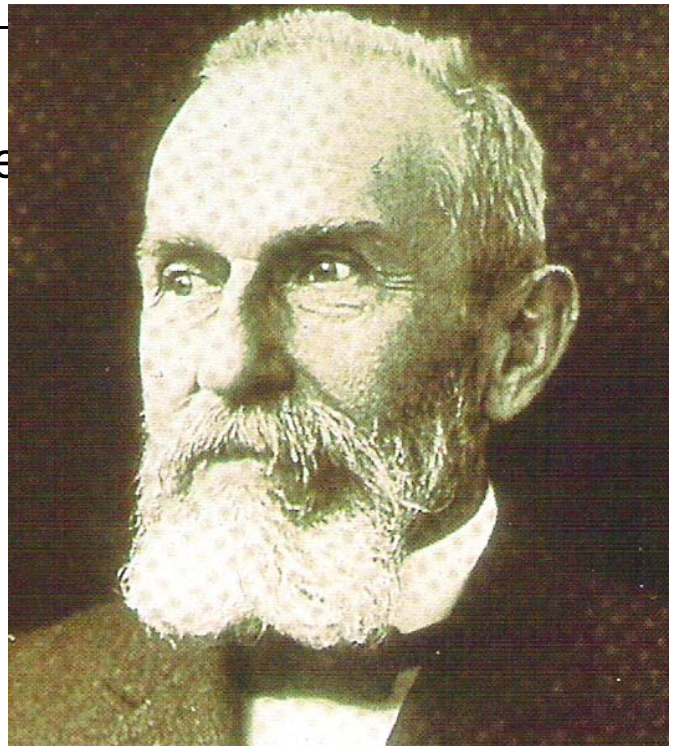
-to differentiate sch as an independent illness

-to establish disease on the basis of outcome/course

-separating from manic-depressive illness

Eugen Bleuler (1857-1939)

schizophrenia 1911



the reason for the cognitive impairment is the splitting of the psychic processes (behavior, emotion, thinking)

fundamental (basic) symptoms: four A's

- affective blunting
- disturbance of association
- autism
- ambivalence

accessory (additional) symptoms:

- delusions,
- hallucinations

Dementia Praecox or the Group of Schizophrenias 1911

Bleuler shifted the emphasis in schizophrenia from course and outcome to the **cross-sectional study of symptoms**, esssentially broadening the concept of the disease and giving a more generous prognosis

Kurt Schneider (1887-1967)

t a separate disease, but a type of illness

first-rank psychotic symptoms

- Audible thoughts
- Voices heard arguing
- Voices heard commenting on one's actions
- The experience of influences playing on the body
- Thought withdrawal and other interferences with thought
- Delusional perception
- Feelings, impulses and volitional acts experienced as the work or influence of others

second-rank psychotic symptoms

Hallutinations
Flight of ideas
Distractedness
Perplexity
Out-of- body experiences
Emotional blunting
Compulsive behavior

Definition (DSM-IV-TR)

- characteristic positive and/or negative symptoms
- deterioration in social, occupational, and/or interpersonal relationship
- continuous signs of the disturbance for at least 6 months

- the disturbance is not due to schizoaffective disorder, mood disorder with psychotic features, substance abuse and/or general medical condition

Subtypes of schizophrenia

- Catatonic type
- Disorganized type
- Paranoid type
- Residual type
- Undifferentiated type

Catatonic schizophrenia

- Catalepsy
- Stupor
- Hyperkinesiae
- Stereotypies
- Mannerism
- Negativism
- Automatisms
- Impulsivity

Hebephrenic/ Disorganized schizophrenia

- Incoherence
- Severe emotional disturbance
- Wild excitement alternating with fearfulness
- Vivid hallutinations
- Absurd, bizarre delusions that are prolific, fleeting, and frequently concerned with ideas of omnipotence, sex change, cosmic identity and rebirth

Paranoid schizophrenia

- Feeling that external reality has changed
- Suspicion and ideas of dedication
- Ideas of references
- Hallucinations, especially of body sensations
- Delusions of persecutions or of grandiosity

Residual schizophrenia

- Interepisodic form
- The condition of being without gross psychotic symptoms following a psychotic schizophrenic episode

Catatonic symptoms

These motor symptoms may occur in any form of schizophrenia, but are particularly associated with the catatonic subtype

- Ambitendence
- Echopraxia
- Stereotypies
- Negativism
- Posturing
- Waxy flexibility

Principal functions of medical classifications

- **Denomination:** assigning a common name to a group of phenomena
- **Qualification:** enriching the information content of a category by adding relevant descriptive features
- **Prediction:** a statement about the expected course and outcome, as well as the likely response to treatment

Important distinction

- **True comorbidity:** co-occurence of etiologically independent disorders
- **Spurious comorbidity:** masking complex, but essentially unitary syndromes