The cycloid psychoses:
The case for a nosological classification in Psychiatry?

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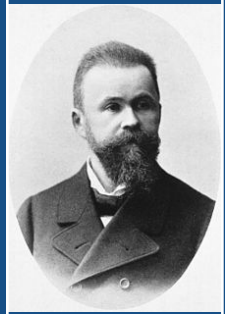
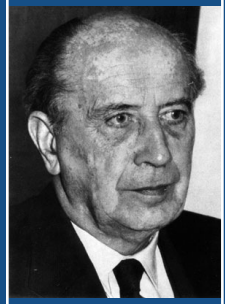
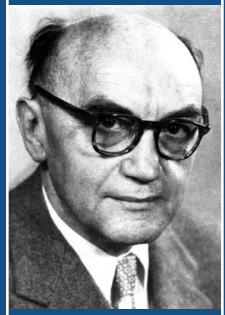
Landmarks in the classification of endogenous psychoses contributions of Wernicke, Kleist und Leonhard

	**C. Wernicke** (1848–1905)	„Grundriß der Psychiatrie“ (1900) Betonung der akuten, ausheilenden Formen von Psychosen (Angstpsychose; agitierte Verwirrtheit/Amentia; akinetisch-hyperkinetische Motilitätspsychose) chronische Formen: paranoische Zustände, Heboid, Katatonien Sejunktionstheorie
	**K. Kleist** (1879–1960)	„Über zykloide, paranoide und epileptoide Psychosen und über die Frage der Degenerationspsychosen“ (1928) „Die Auffassung der Schizophrenien als psychische Systemkrankheiten (Heredodegenerationen)“ (1923) Die Hebephrenien/Katatonien/Paraphrenien aufgrund von katamnestischen Untersuchungen 1940–1965 Die Gliederung der neuropsychischen Erkrankungen (1953)
	**K. Leonhard** (1904–1988)	„Die defektschizophrenen Krankheitsbilder“ (1936) „Grundlagen der Psychiatrie“ (1948) „Biopsychologie der endogenen Psychosen“ (1970) „Aufteilung der endogenen Psychosen“ (1956–2003)

Differentiated psychopathology: essential psychopathological levels

affectivity
- „mood“ (elevated/depressed)
- „quality of affect“ (e.g. blunting of affect)

thought
- formal
  - -- stream of thought
  - -- coherence of thought/speech
- thought content

(psycho)-motility
- quantitative (hyper-/akinetic)
- qualitative
  - -- simple movement pattern
  - -- complex motor pattern

perception
- qualitative
  - -- hallucinations without disturbance of consciousness

descriptive psychopathology

↓

symptom connections

(„Symptomverbindungen“)

cardinal symptoms / core disturbances

facultative symptoms

↓

clinical entities

(„Krankheitsgruppierungen“)

↓

nosology of mental diseases

differentiated aetiology

Leonhard's classification of the schizophrenic psychoses

	psychic system		
	psychomotility	affectivity	thought
cycloid psychoses	motility psychosis	anxiety-ecstasy psychosis	confusion psychosis
		good prognosis	
		poor prognosis	
unsystematic schizophrenias	periodic catatonia	affect-laden paraphrenia	cataphasia
systematic schizophrenias	systematic catatonias	hebephrenias	systematic paraphrenias

Cycloid psychosis
bipolar psychoses with characteristic syndromes

motility psychosis	confusion psychosis	anxiety-ecstasy psychoses
hyperkinesia restless with increase of expressive and reactive motions distractability by momentary events in the enviroment with senseless motor activity	**excitation** incoherence of the thought process with pressure of speech disgressive choice of theme ideas of significance or reference	**ecstasy** ecstatic mood and feelings of happiness with illusionary and hallucinatory experiences ecstatic ideas with altruistic components (religious ideas, social/political tasks) affective waves with ideas of being called, elevated to a divine level or inspired by God
hypokinesia / aktinesia rigid posture and facial expression disappearance of reactive motions reduction or standstill of voluntary movements	**inhibition** inhibition of tought process with verbal impoverishment perplexity and/or mutism ideas of significance or reference	**anxiety** anxiety with distrust and ideas of reference, ideas of threat or persecution anxiety with paranoid features or hypochondriacal somatic sensations
incoherent speech, unarticulated screaming mutism	misidentification of persons auditory or somatopsychic hallucinations	illusions or hallucinations closely related to ecstacy or anxiety
anxious/ecstatic mood swings, rapid alternation of both poles	rapid affective fluctuations hallucinations, persecutory ideas	rapid switches between anxiety and ecstasy

Cycloid Psychoses: the clinical evidence

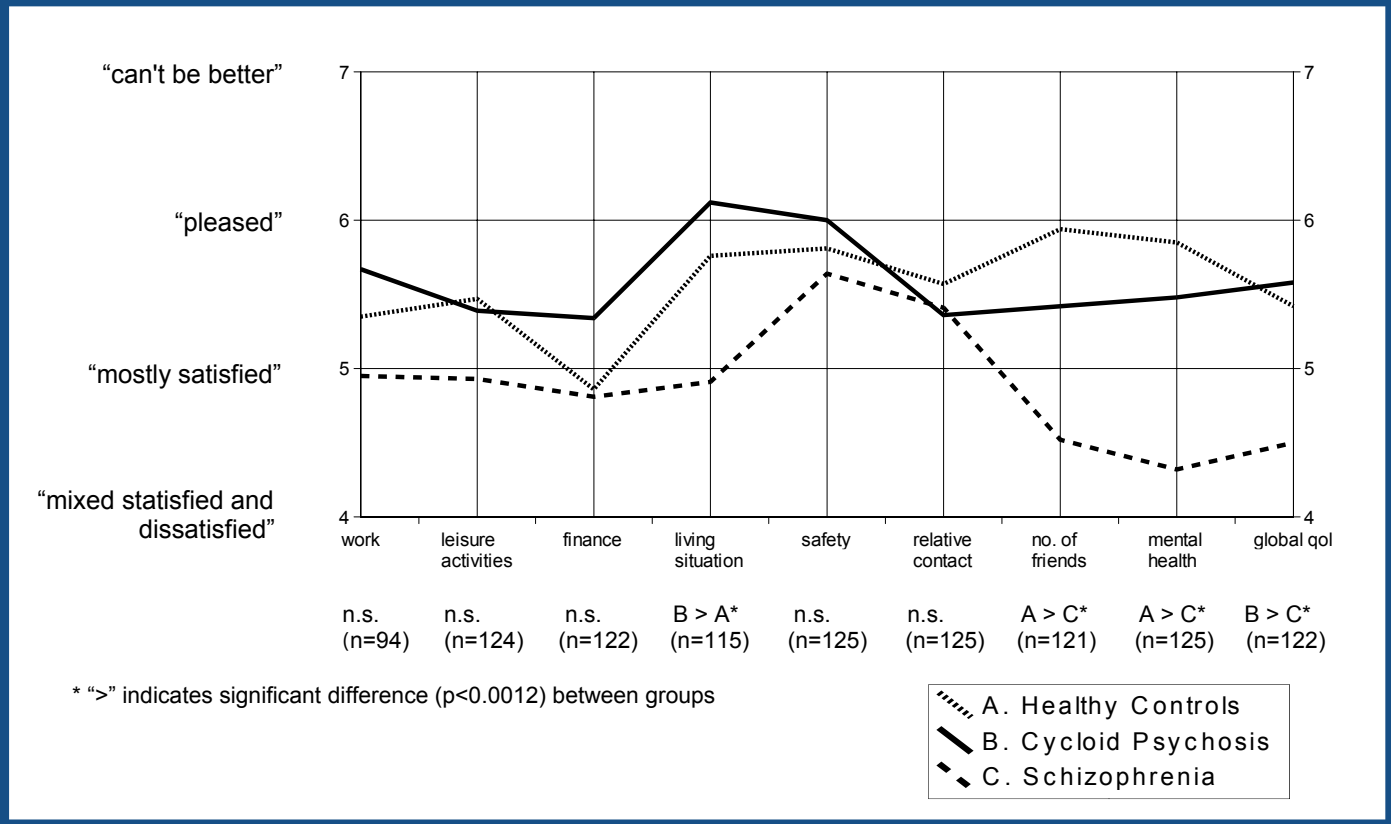
reliable discrimination of the clinical syndromes from schizophrenic, schizoaffective and affective psychoses

(Perris 1974, Cutting et al. 1978, Brockington et al. 1986, Beckmann et al. 1990, Maj 1990, Pillmann et al. 2001, Peralta & Cuesta 2003, van der Heijden et al. 2004, Kerkhof et al. 2012)

high diagnostic stability and prognostic validity
(Perris 1974, Brockington et al. 1982, Ungvari 1985, Maj 1988, Beckmann et al. 1990, Tolna et al. 2001, Kerkhof et al. 2012)

high interrater-reliability of the diagnoses (Cohen's kappa >0.85)
(Franzek & Beckmann 1992, Pfuhlmann et al. 1996, Pfuhlmann et al. 2004)

Quality of life in patients with cycloid psychoses, schizophrenia, and controls (individual statements with WHOQOL-BREF)



Jabs et al. 2004

Differentiated treatment approaches for cycloid psychoses

Acute treatment

Good response of the paranoid-hallucinatory or hyperkinetic syndrome towards neuroleptics/antipsychotics

Syndrome-oriented treatment of affective fluctuations with antidepressants and benzodiazepines

Long-term treatment

No indication for higher-dosed long-term administration of antipsychotics

Beware of: tardive dyskinesa; pharmaco-induced blunting of affect and apathy

Mood-stabilizer as promising as for bipolar affective disorders

Rehabilitation measures always promising

Specific findings on the etiology of cycloid psychoses

Clinical-genetic findings:

- Significantly lower morbidity risk within families compared to individuals with manic-depressive disorder
- No relevant morbidity for schizophrenic psychoses within families
- Concordance rates not significantly different for mono- and dizygotic twins

Genetic factors have a low relevance for etiology

Influence of prenatal noxious agents:

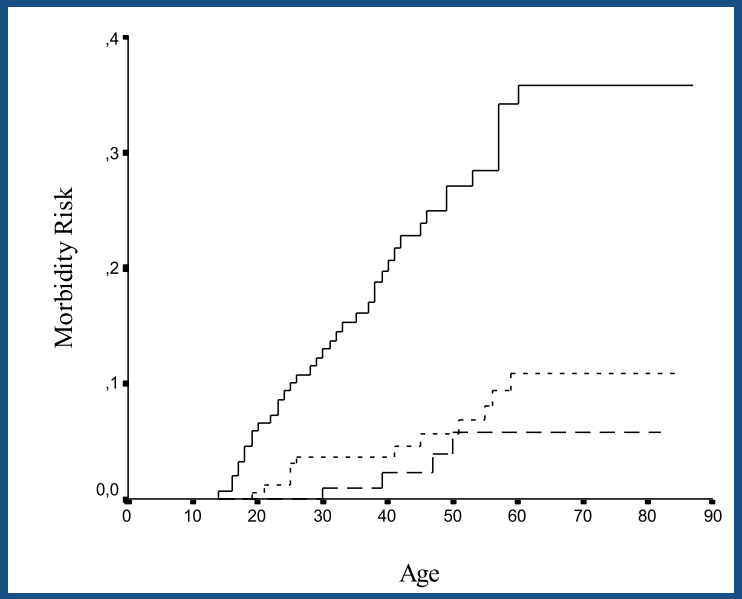
- exposition to prenatal maternal infectious diseases within first pregnancy trimester, "minor physical anomalies"

Exogenous noxious agents in certain phases of brain development seem to be etiologically relevant

Functional findings:

- increase in P300 amplitude
- disconnectivity of neuronal networks
- hyperfrontality in acute phases in ^{99m}Tc-HMPAO SPECT

Indication of (functional) hyperarousal



35,2 %

10,8 %

5,7 %

p < 0.05

n. s.

——————— manic-depressive disease
- - - - - - - cycloid psychoses
— — — — controls

Pfuhlmann et al., 2004

Classification of the endogenous psychoses

	favourable prognosis			unfavourable prognosis	
Kraepelin	manic-depressive insanity			dementia praecox	
Bleuler	manic-depressive illness	group of schizophrenias			
DSM-5 ICD-10	affective disorders	schizoaffective disorders		schizophrenia	
Leonhard	monopolar affective psychoses	manic-depressive disease	cycloid psychoses	unsystematic schizophrenias	systematic schizophrenias

The „atypical psychoses“: challenge in psychiatric nosology

Kraepelin’s dichotomy of the endogenous psychoses

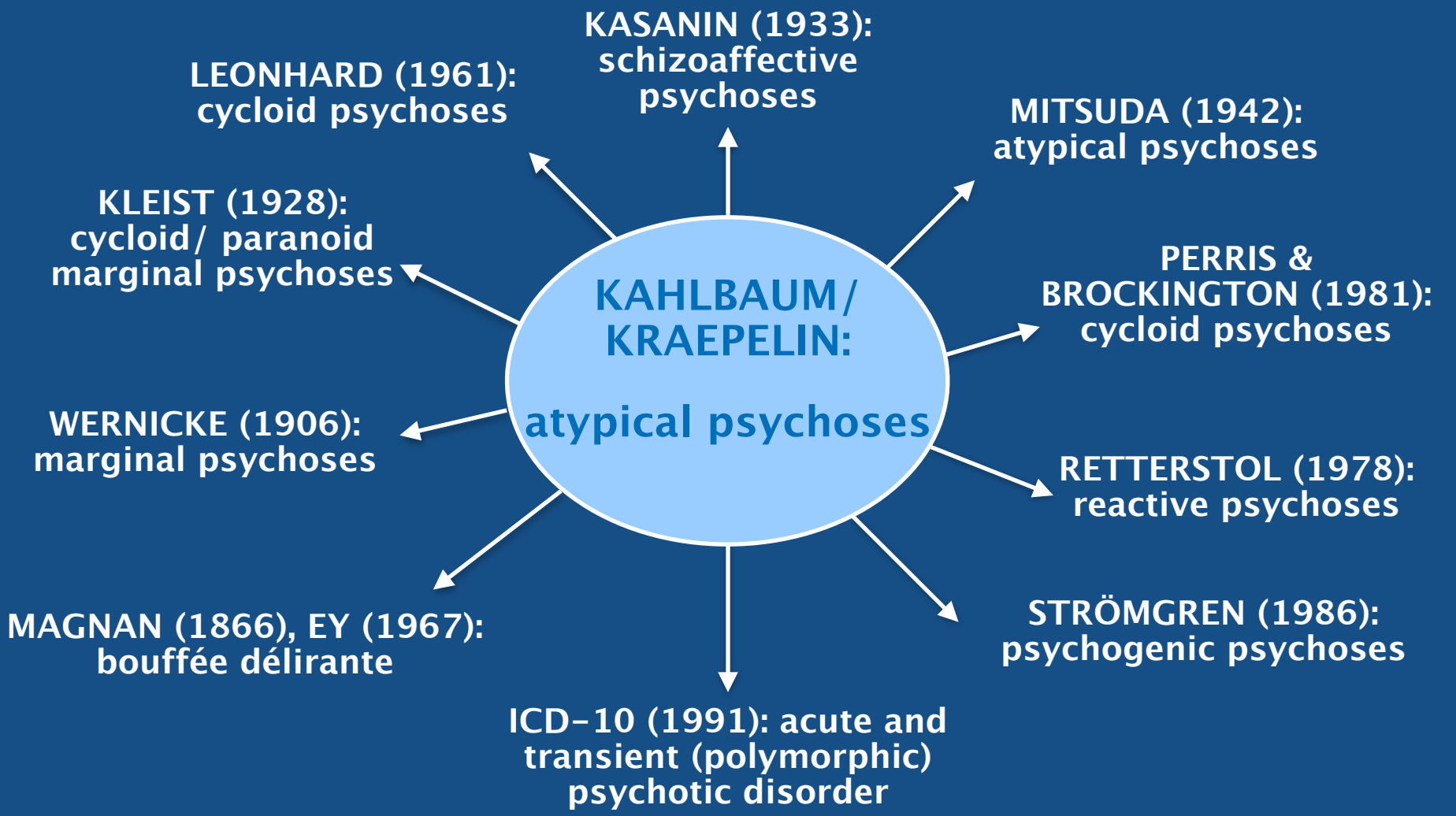
manic-depressive illness ↓ schizophrenia / dementia praecox

“atypical psychoses”

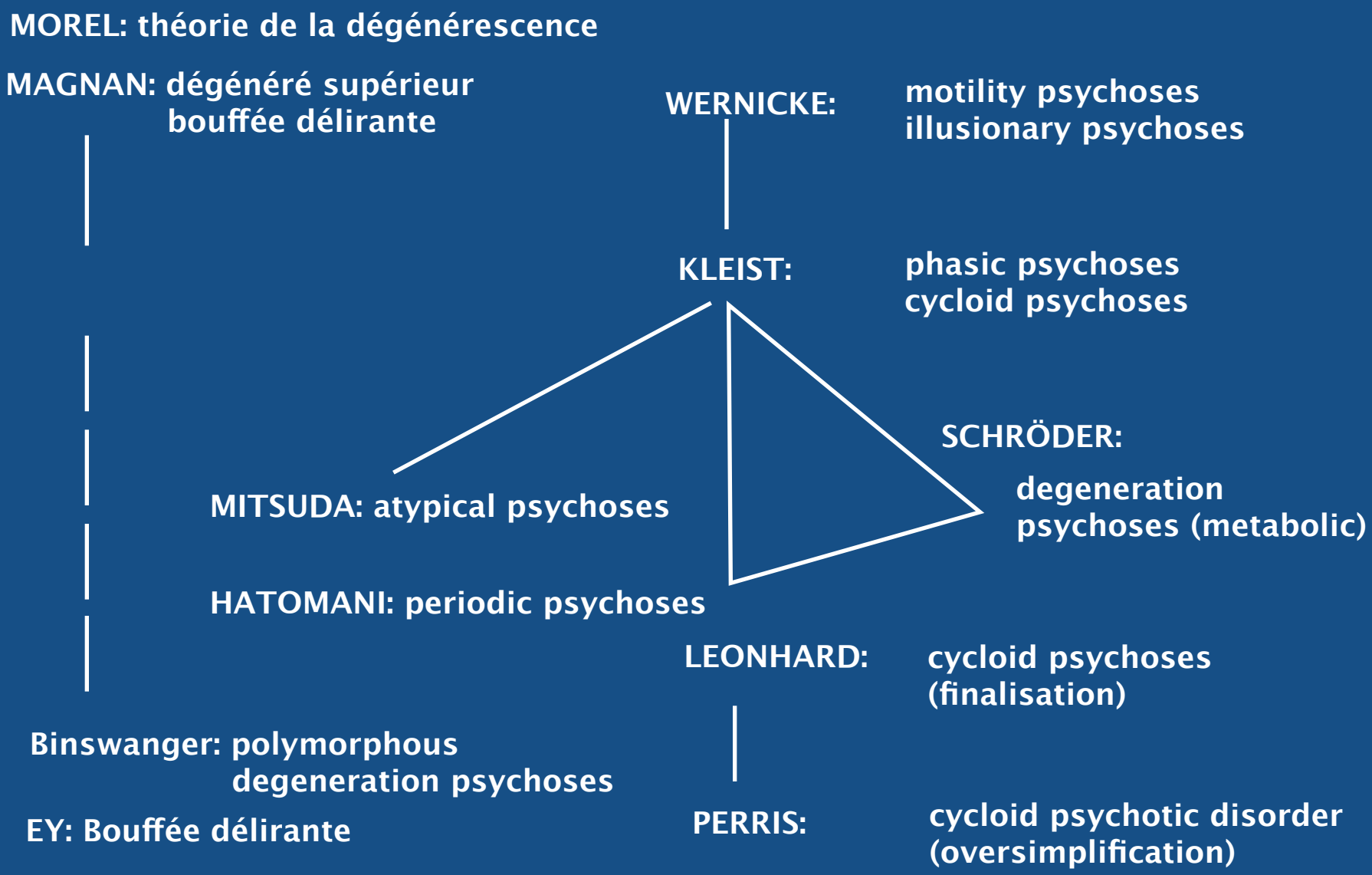
bouffée délirante (Magnan)
schizophreniform disorders (Langfeldt)
atypical psychoses (Mitsuda)
„cases in-between“ (Schneider)
schizoaffective psychoses (Kasanin)

→ non-distinctive symptomatology due to
- diversity of clinical symptoms (affective and “schizophrenic” symptoms)
- episodic, phasic course (full recovery) versus sustained dysfunction (favourable long-term course)

Approaches to atypical psychoses



Cycloid psychoses: historical overview



adopted from Perris, 1986

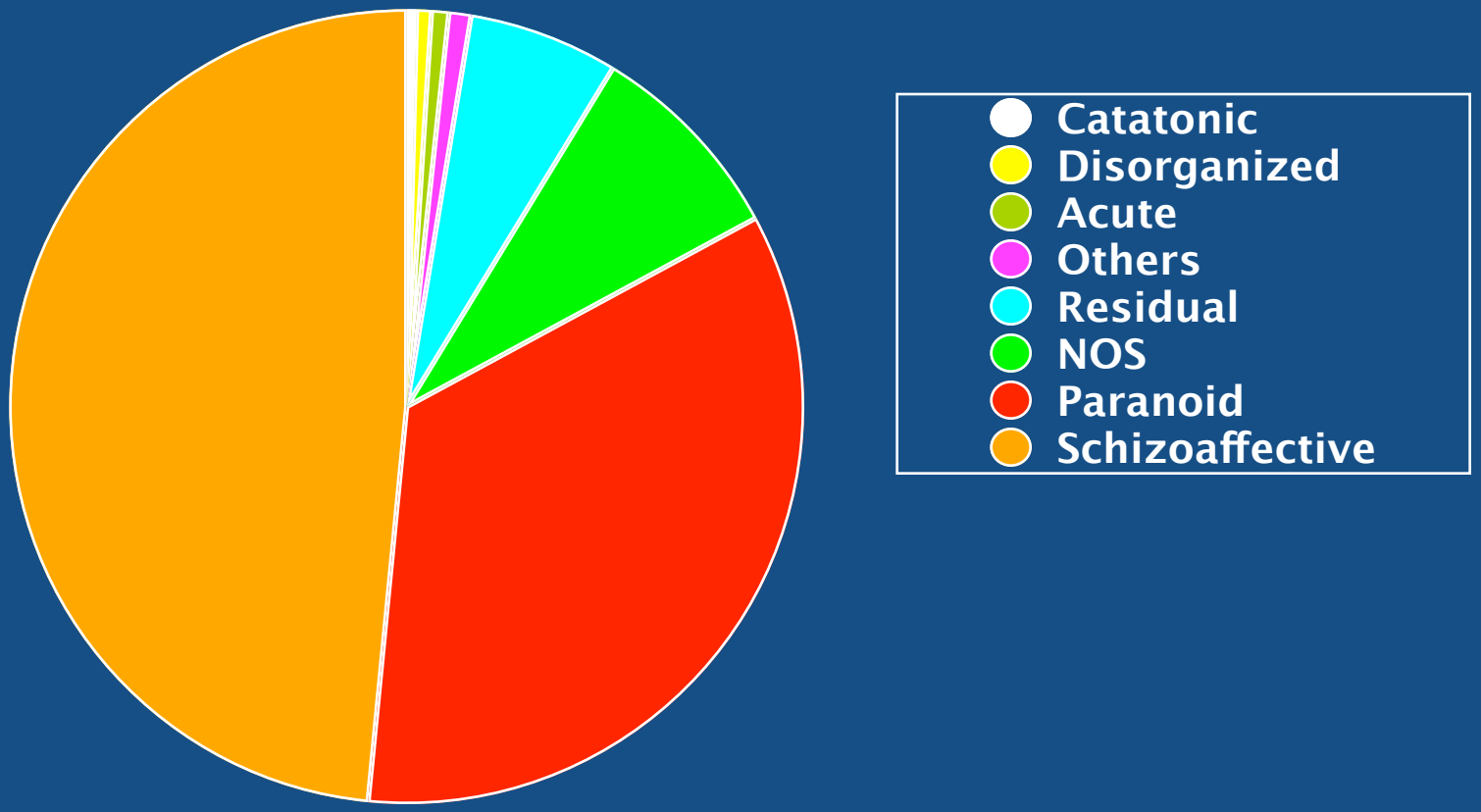
Potential solutions for the problem of the „atypical psychoses“

- broadening of the **diagnostic criteria** for either schizophrenia or manic- depression lowering the **clinical validity and heuristic value** of both diagnostic categories

- implementation of a category of **„mixed psychosis“** including elements of both schizophrenic and (bipolar) affective psychoses – **schizoaffective psychosis**

- delineation of **nosological independent phenotypes** beyond Kraepelin’s dichotomy by applying criteria of a **differentiated psychopathology and nosology**

US-National Data on Schizophrenia Subtypes: 2002



n = 272.000

http://hcup.ahrq.gov/HCUPnet.asp
Caroff SN, unpublished data, 2005

The schizoaffective psychoses: an unsatisfying solution to the problem

- diagnosis comprises **different and controversial conceptions**
- its commonly used conceptualisation as „mixed psychosis“ **cannot account adequately for** the **symptomatology** and **course** of „ atypical psychoses“

competing concepts in ICD and DSM:
concurrent vs concurrent and sequential
unipolar vs bipolar
schizodominant vs affectdominant

- **lack of prognostic significance**
- **no or inconclusive findings** regarding **aetiology**

Acute polymorphic psychotic disorders (ICD-10): an alternative concept of cycloid psychoses?

1. **acute onset with crescendo development in about two weeks or less**
2. **hallucinations, delusions or perceptual disturbances are obvious but markedly variable, changing from day to day or even from hour to hour**
3. **emotional turmoil with intense transient feelings of happiness or ecstasy, or anxiety and irritability**
4. **symptoms should not persist >1 month (schizophrenic symptoms) or >3 months**

Criticism:

- no precise delineation of the symptomatology
- arbitrary time criteria for occurrence and remission of symptoms are decisive for diagnosis

Atypical psychoses in view of Leonhard's differentiated psychopathology

- Subdivision of endogenous psychoses into five distinct main groups of psychoses with their respective subforms permits of a precise classification of virtually every manifestation of an „atypical" psychoses.

- The majority of „atypical" psychoses represent forms of cycloid psychoses that can be distinguished from affective psychoses and schizophrenic psychoses.

- A fraction of „atypical" psychoses can be identified as forms of unsystematic schizophrenias.

Atypical psychoses in view of differentiated psychopathology

- existence of independent group(s) of endogenous psychoses in addition to affective schizophrenic psychoses, i.e. the cycloid psychoses
- from this point of view, cycloid psychoses are by no means simply mixed forms (i.e. schizoaffective psychoses), but are to delineated from both affective and schizophrenic psychoses
- this assumption is affirmed by epidemiological, clinico-genetic and biological findings
- suggesting cycloid psychoses as clinically and nosological distinct entities

Whether one agrees with the views of these workers or not, the fact remains that a group of marginal psychoses exists.
(Fish, Schizophrenia 1962)

Conclusion

- In psychiatric history there are numerous proposals to resolve the problem of atypical psychoses beyond Kraepelin's dichotomia
- Kleist coined the term cycloid psychoses, and distinguished confusion and motility psychosis
- Kleist found overlaps of symptoms with other psychoses, but clearly disagreed with a hybridization (mixed psychoses, „Mischpsychosen")
- Leonhard introduced the bipolar nature of cycloid psychoses and claimed for a third subform (anxiety-ecstasy psychosis) according to long-term follow-up studies on Wernicke's and Kleist's acute delusional disorders, i.a. expansive autopsychosis and anxiety psychoses

Classification of the endogenous psychoses in differentiated psychopathology

monopolar affective psychoses
manic-depressive disease

cycloid psychoses
- anxiety-ecstasy psychosis
- confusion psychosis
- motility psychosis

} favourable prognosis

unsystematic schizophrenias
- affect-laden paraphrenia
- cataphasia
- periodic catatonia

systematic schizophrenias
- systematic paraphrenias
- hebephrenias
- systematic catatonias

} unfavourable prognosis

The Cycloid Psychoses

- bipolarity with polymorphic symptomatology
- phasic course with complete remission after each episode
- absence of schizophrenic residual symptoms
- clinical subtypes affecting distinct psychic systems:

affectivity	anxiety-ecstasy psychosis
thought	excited-inhibited confusion psychosis
(psycho)-motility	hyperkinetic-akinetic motility psychosis

Anxiety-Ecstasy Psychosis

Anxiety:

- severe anxiety with distrust and ideas of reference
- ideas of threat or persecution
- anxiety with paranoid features or mood congruent sensory illusions or hallucinations (e. g. threatening voices)
- anxiety with hypochondriacal somatic sensations

Ecstasy:

- ecstatic mood and feelings of happiness with illusionary and hallucinatory experiences
- ecstatic ideas with altruistic components (religious ideas, social/political tasks)
- affective waves with ideas of being called, elevated to a divine level or inspired by God

Affect-laden Paraphrenia
subtype of the unsystematic schizophrenias

Core syndrome:
irritated reference syndrome („gereiztes Beziehungssyndrom“)
ideas of reference are closely linked to affective irritation and affective fluctuations
initial stages: delusions and hallucinations grow out of anxiety or ecstasy

anxiety with self-reference and hallucinations
ecstasy with false perceptions („love delirium“)
both accompanied by progressive illogical thinking
auditory hallucinations and somatic hallucinations
misperceptions with the feeling of being influenced from outside
delusions of persecution
delusions of immense grandeur

episodic-remitting or continuous course:
ideas no longer deduced by anxiety/ecstasy
=> hostile mis-interpretations of the environment, paranoid ideas strongly anchored in an over-sensitive affectivity

Differentiation from affective psychoses

Melancholia:
depressed basic affect, feelings of insufficiency, self-deprecating ideas, ideas of inferiority, hypochondriacal ideas, depressive ideas of reference, fear, anxiety

Mania:
Euphoric basic affect with elevated self-consciousness, ideas of grandeur, flight of ideas, pressure of speech, overactivity with egomaniac actions

Manic-depressive Illness:
manic or melancholic basic syndrome with distinct modifications of the core syndrome, i.e. mixed or partial states

Anxious pole:
Agony, fear of death with mistrust, ideas of reference, and hallucinations

Ecstatic pole:
Ecstatic affect, ideas of vocation or mission, redemption or salvation and happiness, making others happy, ideas of reference, and hallucination

Differentiation from affective psychoses

Agitated (Harried) Depression	tortured-depressive state with fearful agitation lacking anxious ideation, severe and constant restlessness, sometimes with iterative and uniform complaints of feeling uneasy („Jammerdepression“), depression of vital character
Self-Tortured Depression	severe, torturing ideations with agitated depressive mood patients are calm if the ideas are not verbalised; as soon as they begin to talk about their ideas of sin and inferiority the tortured-depressive affect increases
Suspicious Depression	moderate anxious and depressed mood without agitation ideas of self-reference, which are deduced from activities of their surroundings, ideas of reference display always a depressive foundation, ideas of worthlessness and inferiority, presumed criticisms coming from the environment reflecting their own inferiority due to misconduct arising from their own fault
Hypochondriacal Depression	moderately depressed mood with obsessing misperceptions which are peculiar and point directly to bodily organs, unlike symptoms of physical illness)
Monopolar Euphorias	

Differentiation from hebephrenias

four **subforms with specific clinical symptomatology**

- silly („läppische“) hebephrenia
- shallow („flache“) hebephrenia
- autistic („autistische“) hebephrenia
- eccentric („verschrobene“) hebephrenia
- combined forms

incidental states of irritation, excitation and aggression, reminiscent of anxiety or euphoria; often with ideas of reference and pseudo-hallucinations in all sensory fields (mostly phonemes)

deficit of emotional depth towards non-momentary interests
in contrast to immediately activated primary emotions
deficit of future-oriented „tension of will“ („Willensspannung“)
in contrast to immediately activated interests

Disruption of formal thought – “quantitative” vs. “qualitative” changes

„Quantitative“:

- Disruptions in train of thought/speed of thinking (“Denktempo”)

„Qualitative“:

- **Logical level/ level of discourse:** disruptions of logical (with regard to topic, content, term) **order and organisation of the train of thought** as well as its orientation towards a superordinate aim of thinking
- **Semantic level**: disruptions in concept formation and use
- **Syntactic level**: disruptions in grammatical order

→ Manifold combinations incl. multilevel clinical pictures are possible

Confusion Psychosis

Excitation:

- incoherence of thought process (incoherence of thematic choice) with pressure of speech
- digressive choice of theme
- ideas of significance or reference
- fleeting misidentifications of persons or hallucinations
- rapid affective fluctuations

Inhibition:

- inhibition of thought process with verbal impoverishment
- perplexity and mutism
- ideas of significance or reference
- auditory or somatopsychic hallucinations

Cataphasia (schizophasia)

subtype of the unsystematic schizophrenias

central syndrome: qualitative thought disorder

excited pole

- confused pressure of speech
- logical blunders and derailments
- wrong choice of words, neologisms, contaminations, „word salad“
- confabulations
- uniformity of verbal expression
- grammatical and semantic errors, paragrammatism

inhibited pole

- thought inhibition with poverty of speech or mutism with logical errors, syntactic and semantic errors
- ideas of reference
- numbing of reactivity, and facial expression
- blunted staring at the examiner

intermittent, bipolar course with ecstatic mood fluctuations

accessory hallucinations and delusions

persistent logical errors, paralogic thinking (proverbs), behaviour remains usually well organised, activities fairly well preserved with blunted, indifferent affectivity

Characteristics of formal thought disorder in confusion psychosis

- **Discursive choice of topics** (lowest degree of thought disorder): In the conversation a frequent excursus to topics that were only widely linked to the current context could be observed. Each single topic, however, is adhered to for some time and is correctly explicated.
- **Incoherence of the choice of topics** (excited pole): Loss of comprehensive logic/associative link between disparate topics within the accelerated train of thought, whereas no logic, semantic, or syntactic errors can be observed within a currently addressed topic.
- **Inhibition of thoughts with perplexity** (inhibited pole): Inhibition of the train of thought with inquiring, incomprehensive attitude while losing the ability to judge facts and external conditions correctly, and to classify them into a logic context.

Differentiation from affective psychoses

confusion psychosis

specific and independent formal thought disorder: disrupted order of thoughts independent of affective changes

exceeding quantitative aspects of an inhibited or accelerated course of thinking

fluctuations in affectivity: lower level of intensity than for pure affective disorders or anxiety-ecstasy psychosis

depression

decelerated course of thought with reduced production of thought and reduced rate of speech (inhibition)

extended response latency, primarily for questions with not immediately retrievable answers, impeded decision making (ambivalence)

arrest of thought with depressive affect (depressive face) <-> perplexed, inquiring attitude in inhibited confusion psychosis

Activation of thought in mania

- **primarily quantitative changes of thought** in the sense of an **increased speed in the course of thinking and increased production of thoughts** combined with **logorrhea**
- on low occurrence: frequent **digressions in speech**, which do not lead to detailed expressions, and from which the patients can quickly find back to the actual topic
- on severe occurrence: **flight of ideas** with accelerated courses of thought, rapid changes between topics, superordinate mental ideas (“thread“) gets increasingly lost, elementary associations gain the lead (points of contact with regard to time, space, or sound of words)

  between topics some (superficial) associative gaps identifiable
- in extremely rare conditions, i.e. confused mania, the formal thought disorder transits to confusion psychosis

Differentiation from schizophrenic psychoses

Most important differential diagnoses:

- **cataphasia** with characteristic formal thought disorder
- **Systematic paraphrenia with specific thought disorders within a clearly defined, long-term stable symptom complex with thought disorders/delusions, and/or perception disorders with each of their specific characteristics**

Change of thought in acute organic brain diseases

- confusion due to a decrease in consciousness with lowered concentration; lack of clarity of thoughts, blocking and/or preterm tearing of thoughts, elimination of words and parts of a sentence

Psychomotor behaviour / Psychomotility

spontaneous movements	volitional impulse („Willensimpuls“)
reactive movements	immediate motoric response to external stimuli with quick volitional impulse (e.g. greeting, nodding, waving or other motor activity of visual attention)
expressive movements („Ausdrucksbewegungen“)	involuntary movements, which directly express affective mental states („Gefühlszustände) via facial expression and gestures

Disturbances of psychomotor behaviour I

Iteration
simply composed, repetitive movements repeated in the same way, without goal-oriented behaviour or expressive character

Stereotypy
recurrent, not goal-directed, limited movements carried out in a uniform way

Mannerism
complex motor patterns triggered by external stimuli
rituals and habits involving certain sequences of movements resembling obsessive and compulsive phenomena but lacking the affective link (fearful worries)

movement mannerisms („Bewegungsmanieren“)
movement omissions („Unterlassungsmanieren“)

mannerisms are recurrent, static, unvaried, changing motor behaviour in a stiff way

Disturbances of psychomotor behaviour II

Parakinesia / Grimacing
distorted, disharmonious reactive and expressive movements
absence of fluidity or loss of harmonious merging into each other of gestures and facial expression
jerky, galvanic mid-term movements; stiff or choppy movements, abrupt movements in a stiff motion sequence

Psychomotor negativism
active resistance with characteristic opposite trend (ambitendency), e.g. alternating between desire and aversion;
e.g. head looks in another direction than would be expected from the body's stance
motiveless, appearance not related to anxiety or delusion

Proskinesis
abnormal tendency to turn towards the examiner and to begin with automatic movements as a result of external stimuli („Anstoßautomatie", „Gegengreifen", „Mitgehen")

Motility Psychosis

Hyperkinesia:

- pure quantitative increase of motion (independent of disorders of thought or emotion)
- restlessness with increase in expressive and reactive motions
- distractibility by momentary events in the environment with continued senseless motor activity
- incoherent speech, unarticulated screaming

Akinesia:

- disappearance of reactive motions
- rigid posture and facial expression
- reduction or standstill of voluntary movements (akinetic stupor)
- lack of spontaneous speech
- affective fluctuations, hallucinations

Periodic catatonia

central syndrome
qualitative psychomotor disturbances

hyperkinetic pole

- hyperkinesia with akinetic traits
- psychomotor excitement and restlessness with iterations, stereotypes
- parakinesia, facial grimacing
- distorted movements
- impulsive actions

mixed states

intermittent, bipolar course with accessory hallucinations and delusions

characteristic catatonic residual syndrome with psychomotor weakness of expressive movements, isolated stereotypes, grimacing facial movements, disharmoniously stiff or parakinetic movements and diminished incentive

akinetic pole

- akinesia with hyperkinetic traits
- stupor with negativism
- stiff motor activity
- bizarre, stereotype postures
- uniform movements
- perseveration

Differential diagnosis of reduced/impaired drive and hypo-/akinesia in psychiatric disorders I

Dissociative disorder

pseudostupor, isolated inability of movement, (functional) paresis as expression of strains, conflicts, and emotional burdens

Depression (melancholia or manic-depressive disorder)

stupor in manic-depressive disorder; melancholic inhibition of thought and drive with depressive formation of ideas, depressive facial expression and gestures

Confusion psychosis

inhibition of movement as part of inhibition of thought up to mutism accompanied by perplex facial expression, misinterpretation of surrounding

Anxiety-ecstasy psychosis

expressive motor activity underlines psychotic formation of ideas (anxious gaze, captured by anxiety, „turn into a pillar of salt“); ecstatic facies, pathetic gestures, expressive motor activity accompanies formation of ideas)

Differential diagnosis of reduced/impaired drive and hypo-/akinesia in psychiatric disorders II

Unsystematic schizophrenias (cataphasia, affectladen paraphrenia)

unspecific agitation of movement, agitation connected to and elicited by affect and formation of ideas, perplexity with increasing affective blunting (cataphasia), mistrust with irritable reference syndrome („gereiztes Beziehungssyndrom“)

Catatonic psychoses (periodic catatonia, systematic catatonia)

specific qualitative disorders of psychomotor activity with specific subtypes, among these stereotypes, parakinesia, proskinesis, negativism, mannerisms

Systematic schizophrenias

expansive paraphrenia: high-sounding phrases, superior attitude when dealing with others corresponding to ideas of grandiosity which affect the whole personality

autistic hebephrenia, eccentric hebephrenia

Differential diagnosis of increased drive and hyperkinesia in psychiatric disorders

Dissociative disorder

physiologically implausible multiform movements as expression of strains, conflicts, and emotional burdens

Mania (pure mania, manic-depressive disorder)

affect-related agitation of movement with increased, but psychomotor activity which is congruent to the situation and content, elevated drive in connection with plans and ideas

Cycloid psychoses/unsystematic schizophrenias

unspecific agitation of movement, agitation connected with and elicited by affect and formation of ideas, expressive motor activity underlines psychotic formation of ideas

Catatonic psychoses

Specific qualitative disorders of psychomotor activity, among these stereotypes, parakinesia, proskinesis, negativism, mannerisms

On the question of overlap with the three subtypes of cycloid psychoses

overlap of symptoms between cycloid psychoses appears in a number of cases

but: symptomatology of the underlying form dominates the episode, additional symptoms of others forms remit more rapidly

<u>differentiate:</u> urge to communicate with unsorted speech vs. incoherence

inner tension with motor activity vs. unmodifiable agitation

affective lability vs. rapid changes between anxiety and ecstasy

basic syndrome	overlap in symptomatology
anxiety/ecstasy	confused or incoherent speech, agitated motor activity
inhibited confusion	ecstatic affect with happy facial expression and scarce expressions, anxious formation of ideas with threat
excited confusion	ecstatic surge of emotion and formation of ideas as well as agitated psychomotor activity
akinesia	depressed affect, anxiety, rarely ecstasy, delusions with perplexity
hyperkinesia	exalted affect, ideas of happiness/great fortune, incoherent speech, inhibition of thought

A proposal for a nosological classification of the endogenous psychoses

Distinct phenotypes with different aetiology

Cycloid psychoses:

low genetic loading according to family and twin studies
early noxious events (first trimester gestational infections; MPAs)
Neurophysiology and Imaging
P300-peak and amplitude: normal topography and latency, significantly higher amplitude than in controls and schizophrenics (hyperarousal)
disconnectivity in cerebral networks
reversible acute hyperfrontality using ^{99m}Tc-HMPAO-SPECT

Systematic schizophrenias:

low genetic loading according to family and twin studies
early noxious events (second trimester gestational infections)

Unsystematic schizophrenias: valid phenotypes in the schizophrenic spectrum

Periodic Catatonia: genetic heterogeneity
associated loci at chromosome 4, 7, and 19
Cataphasia: morbidity risk of 24% among first degree relatives

Conclusions: The Cycloid Psychoses

- distinct nosological entities; phasic psychoses with good prognosis
- clinically and clinico-genetically delineated from bipolar affective psychoses as well as schizophrenia
- low genetic loading according to family and twin studies

➨ Cycloid psychoses: complex multifactorial pathogenesis

- environmental factors: early noxious events;
first trimester gestational infections; MPAs
- proposed minor gene effects: gaba-ergic genes (GABRB2; Yu et al. 2006)
- P300-peak and amplitude: normal topography and latency, significantly higher amplitude than in controls and cases with schizophrenia (hyperarousal)
disconnectivity in neuronal networks
reversible hyperfrontality using ^{99m}Tc-HMPAO-SPECT

Symptom checklist adopted from Leonhard's textbook

Leonhard K. Differenzierte Diagnostik der endogenen Psychosen, abnormen Persönlichkeitsstrukturen und neurotischen Entwicklungen. Verlag Gesundheit 1991

see also:

Kerkhof et al. Cycloid psychoses: Leonhard's descriptions revisited. Eur J Psychiatry 2012 266-278

Symptom checklist for anxiety-happiness psychosis according to Leonhard

1. Anxious affect
2. Frightening images (ideas of threat, anxious ideas of reference)
3. Anxious-hypochondriac ideas
4. Pathetic-euphoric affect
5. Ideas of happiness/making others happy (altruistic character)
6. Rapid changes of anxiety and euphoria
7. Ideas of self-sacrifice
8. Affect-congruent optic illusions/hallucinations (out of anxiety or ecstasy)
9. Affect-congruent voices (out of anxiety or ecstasy)

Symptom checklist for confusion psychosis

1. Logorrhea with incoherency in the choice of topics
2. Ideas of reference with perplexity and inhibition
3. Delusions of reference accompanying perplexity
4. Voices out of perplexity
5. Inhibition of thoughts
6. Perplex stupor
7. Fleeting illusionary misjudgments of persons

Symptom checklist for motility psychosis

1. Psychomotor activation with increased expressive and reactive motor activity
2. Strong distractibility by external conditions
3. Meaningless (“leerlaufende”) motor activity (no overactivity)
4. Meaningless motor speech sounds (screams, jeering, syllables)
5. Psychomotor slowdown
6. Stupor with stiff motor function

Cycloid psychoses
bipolar psychoses with characteristic syndromes

motility psychosis	confusion psychosis	anxiety-ecstasy psychoses
hyperkinesia restlessness with increase of expressive and reactive motions distractibility by momentary events in the environment with senseless motor activity	**excitation** incoherence of thought process with pressure of speech disgressive choice of theme ideas of significance or reference	**ecstasy** ecstatic mood and feelings of happiness with illusionary and hallucinatory experiences ecstatic ideas with altruistic components (religious ideas, social/political tasks) affective waves with ideas of being called, elevated to a divine level or inspired by God
hypokinesia / aktinesia rigid posture and facial expression disappearance of reactive motions reduction or standstill of voluntary movements	**inhibition** inhibition of thought process with verbal impoverishment perplexity and mutism ideas of significance or reference	**anxiety** anxiety with distrust and ideas of reference, ideas of threat or persecution anxiety with paranoid features or hypochondriacal somatic sensations
incoherent speech, unarticulated screaming mutism	misidentification of persons acoustic or somatopsychic hallucinations	illusions or hallucinations closely related to ecstasy or anxiety
anxious/ecstatic mood swings, rapid alternation of both poles	rapid affective fluctuations hallucinations, persecutory ideas	rapid switches between anxiety and ecstasy

Cycloid psychoses vs Unsystematic schizophrenias bipolar psychoses with characteristic syndromes

Anxiety-ecstasy psychosis	Affect-laden paraphrenia
ecstatic mood and feelings of happiness with illusionary and hallucinatory experiences ecstatic ideas with altruistic components (religious ideas, social/political tasks) affective waves with ideas of being called, elevated to a divine level or inspired by God	irritated reference syndrome, ideas of reference and paranoid ideas closely linked to affective irritation, hostile misinterpretations of the environment, auditory and somatic hallucinations with deep irritation
anxiety with distrust and ideas of reference, ideas of threat or persecution anxiety with paranoid features or hypochondriacal somatic sensations	affective fluctuations excited pole: delusions of immense grandeur, ecstasy with false perceptions inhibited pole: depression and anxiety with self-reference and hallucinations
illusions or hallucinations closely related to ecstasy or anxiety rapid switches between anxiety and ecstasy fluctuating character of both anxiety and ecstasy ideas of self-sacrifice (double-faced ideas)	increasing apathy paranoid ideas remain strongly anchored in an over-sensitive affectivity accessory symptoms: illogical component with fantastic delusions
episodic remittent frequent episodes often followed by anxious basic affect and avoid ant behavior	strong affective fixation of delusions despite affective blunting outside ideas and lack of drive wide clinical range at endpoint

Cycloid psychoses vs Unsystematic schizophrenias bipolar psychoses with characteristic syndromes

Confusion psychosis	Cataphasia
excitation incoherence of thought process with pressure of speech disgressive choice of theme ideas of significance or reference	excited pole: confused pressure of speech, logical blunders and derailments, neologisms, confabulations, grammatical and semantic errors, paralogic thinking
inhibition inhibition of thought process with verbal impoverishment perplexity and mutism ideas of significance or reference	inhibited pole: thought inhibition with poverty of speech or mutism, logical errors, syntactic and semantic errors, numbing of reactivity
misidentification of persons acoustic or somatopsychic hallucinations rapid affective fluctuations hallucinations, persecutory ideas	indifferent affectivity, increasing apathy, persistent logical errors (proverbs) accessory symptoms: hallucinations and ideas of reference, anxious and ecstatic mood fluctuations
episodic remittent	wide range of residual symptoms at endpoint persistent logical errors, paralogic thinking, behaviour remains usually well organised

Cycloid psychoses vs Unsystematic schizophrenias bipolar psychoses with characteristic syndromes

Motility psychosis	Periodic catatonia
hyperkinesia restlessness with increase of expressive and reactive motions distractibility by momentary events in the environment with senseless motor activity	hyperkinesia with akinetic traits: parakinesia, restlessness with stiff motor activity, stereotypies, grimacing
hypokinesia / aktinesia rigid posture and facial expression disappearance of reactive motions reduction or standstill of voluntary movements	akinesia with hyperkinetic traits: uniform movements, iterations, stereotypies, bizarre postures, perseveration stupor with negativism
incoherent speech, unarticulated screaming mutism anxious/ecstatic mood swings, rapid alternation of both poles	apathy of varying degree, stiff movements, isolated stereotypes, or grimacing accessory symptoms: hallucinations and delusions
full remission after each episode	periodic onset; episodes of worsening in the course apathy, stiff movements, isolated stereotypes, or grimacing