



# Conceptual transitions: What will happen to the concept of mental disorders in the 21<sup>st</sup> century?

Paul Hoff

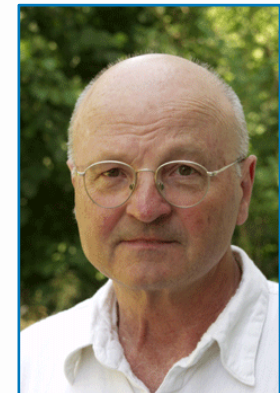
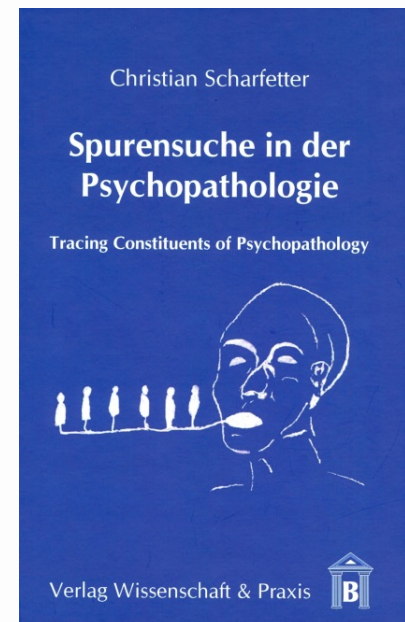
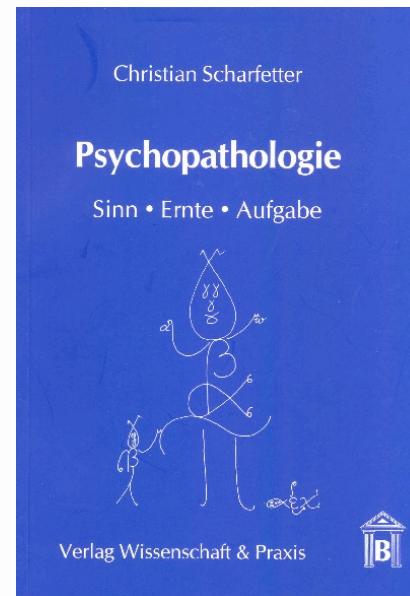


17<sup>th</sup> International Congress  
Geneva, July 9-11, 2017



University Hospital  
of Psychiatry Zurich

In memoriam  
**Christian Scharfetter**  
1936 – 2012





# Agenda

- **Conceptual transitions in psychiatry**  
The historical perspective
- **Four influential lines of thought**  
Reification, idiography, operationalism, denosologization
- **Multi-perspectivism in psychiatry:**  
Mandatory, but not without pitfalls  
On the future role of psychopathology
- **Résumé**





# Agenda

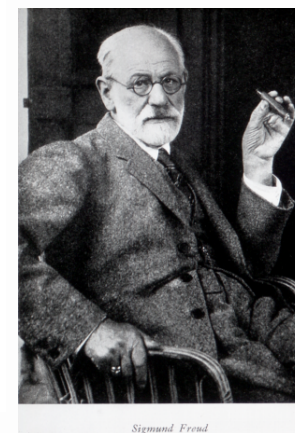
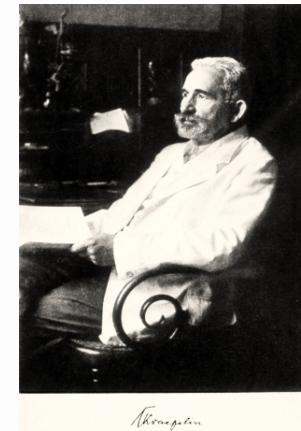
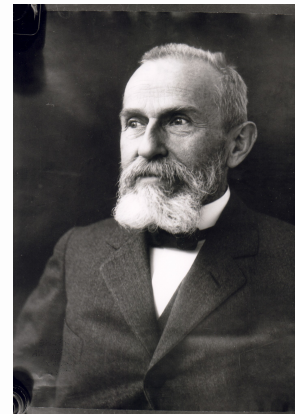
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# Defining mental illness – A broad spectrum ...





## **«Mentally ill»**

Hypotheses und metaphors  
from 1750 until today

**Illness of the «Ratio»**

**Consequence of immoral life**

**Illness of the brain**

**Natural disease units**

**Adjustment disorders**

**Powerful unconscious factors**

**Degeneration**

**Resulting from poor living conditions**

**Different existential mode**

**Repressive concept**

**Communicative disorder**

**Bio-psycho-social model**

## Two dimensions of medicine, including psychiatry



### “Ars medica”

- Subject
- Idiographic
- Reproducibility not that important
- Focus on qualitative phenomena
- Linked to *all* scientific fields



### Science

- Object
- Nomothetic
- Reproducibility as a crucial criterion
- Focus on quantitative phenomena
- Linked to *natural sciences*, especially biology

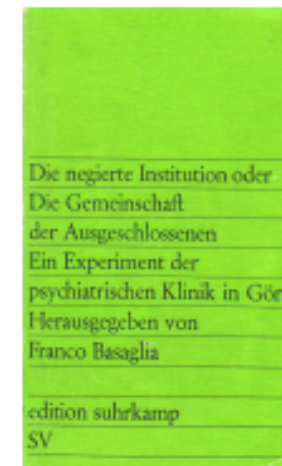
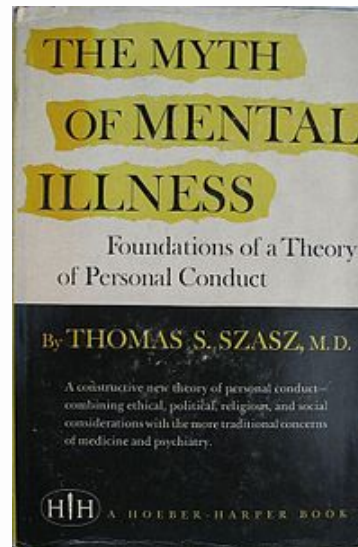
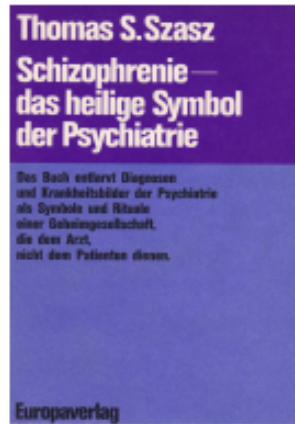


# Antipsychiatry

Fundamental criticism from within psychiatry



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# Dealing with brains, persons, societies?

## On whom or what psychiatrists treat

- ◆ We treat **persons**.
- ◆ But persons
  - who do have a **bodily existence**
  - who can fully realize their personhood only in the **interaction with others**.





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# (1) Reification

- rēs <reī> f
  - fact
  - thing
  - object



## Reification of mental disorders ...

- ... assumes mental illnesses to exist **in full independence** of any scientific activity.
- ... is rooted in **philosophical realism**.
- ... today usually argues within a **naturalistic framework** (*mental illness as brain disease*), but may also appear in a psychological or social sciences context.

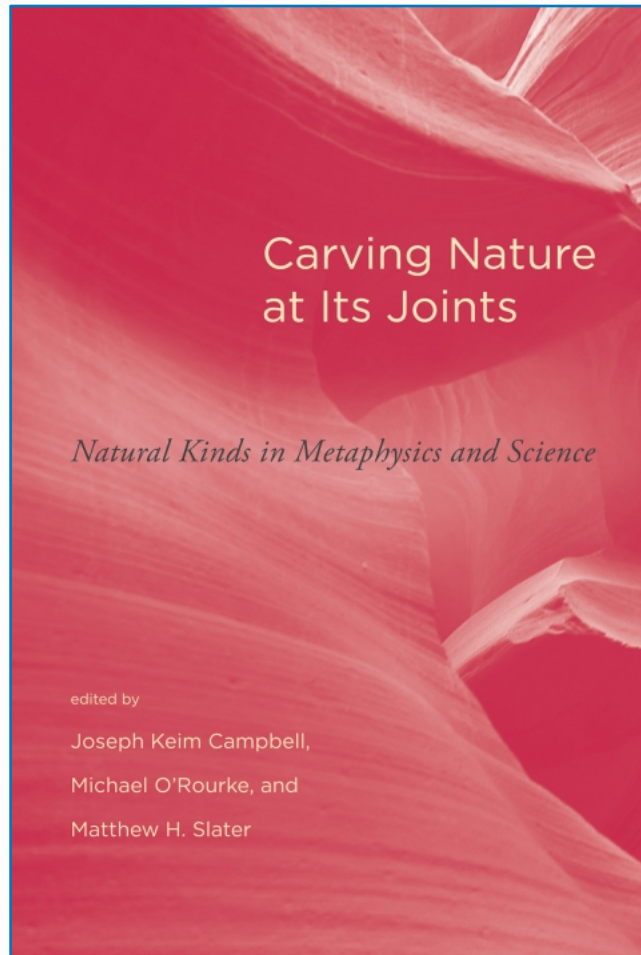






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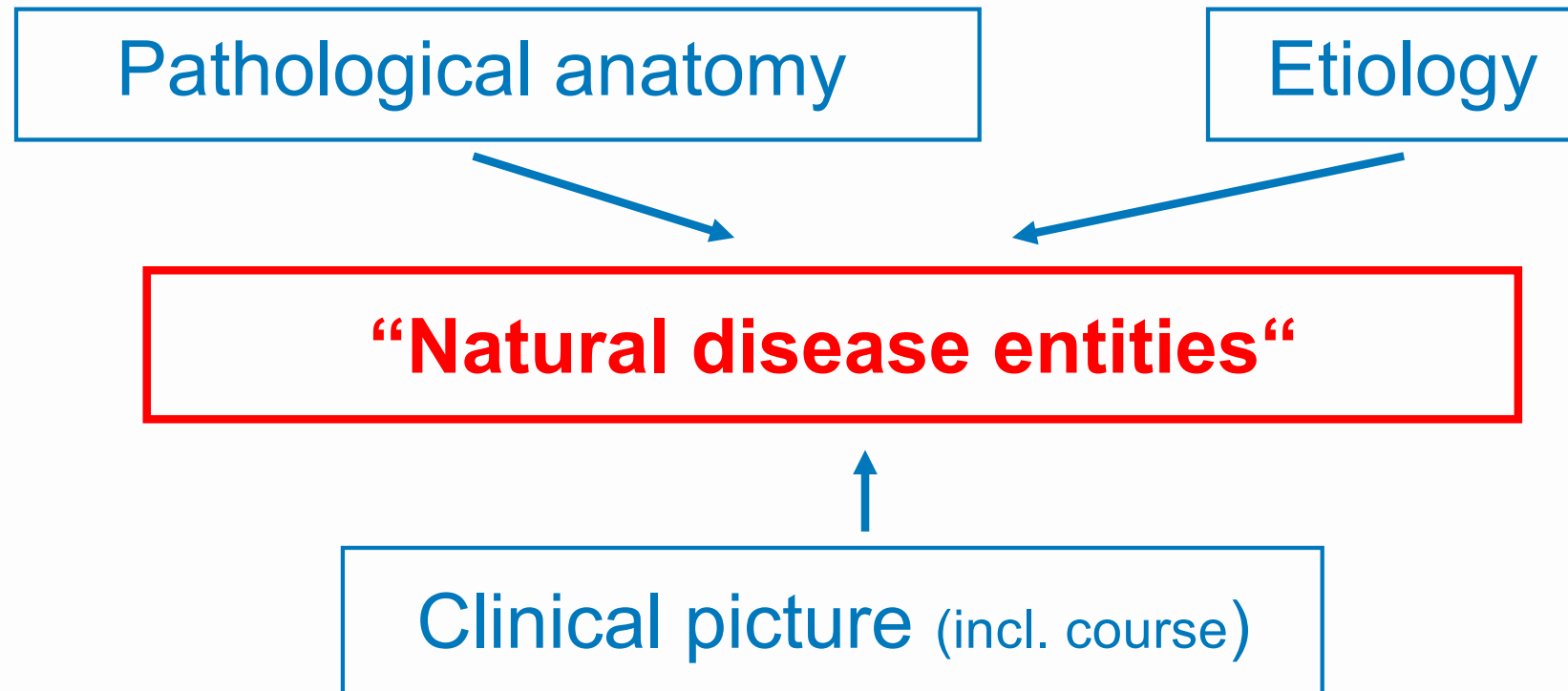
# “Carving Nature at Its Joints”



2011



## Kraepelin`s disease concept





# An ongoing debate ...

BJPsych

The British Journal of Psychiatry (2010)  
196, 92–95. doi: 10.1192/bjp.bp.109.073429

## Reappraisal

### The Kraepelinian dichotomy – going, going . . . but still not gone

Nick Craddock and Michael J. Owen

#### Summary

Recent genetic studies reinforce the view that current approaches to the diagnosis and classification of major psychiatric illness are inadequate. These findings challenge the distinction between schizophrenia and bipolar disorder, and suggest that more attention should be given to the relationship between the functional psychoses and neurodevelopmental disorders such as autism. We are entering a transitional period of several years during which

psychiatry will need to move from using traditional descriptive diagnoses to clinical entities (categories and/or dimensions) that relate more closely to the underlying workings of the brain.

#### Declaration of interest

None.





## (2) Idiography

- idiography/ɪdɪˈɒɡrəfi/
  - The study of the individual, or of single events or facts.

# Karl Jaspers on the object of psychiatric research

- «The psyche as such is **not at all an object of research**. It becomes an object via perceivable phenomena: ... by **comprehensible expressions, behaviour, deliberate actions, ... language**»

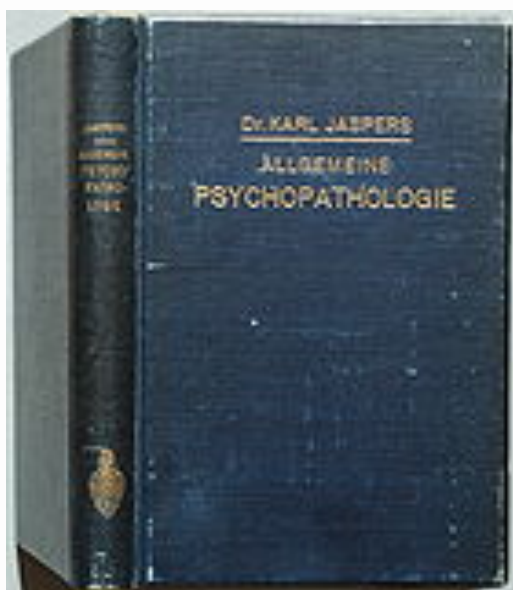
Jaspers 1946, S. 8



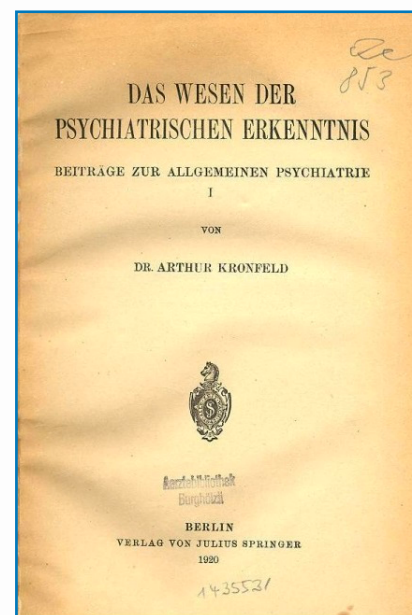


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**Karl Jaspers**  
1883 – 1969



1913



1920



**Arthur Kronfeld**  
1886 – 1941





# Anthropological psychiatry



**Ludwig Binswanger**  
1881 - 1966



**Medard Boss**  
1903 - 1990



**Alfred Kraus**

**Mental disorders  
are biographically  
meaningful**

(without ignoring  
biological factors)



## (3) Operationalism

- operare, opero, operatus
  - operate (math.)
  - work







# Operationalized psychiatric diagnoses

as in ICD-10 & DSM-5

- Nominalistic *and* categorical approach
- Etiologically neutral (not: „atheoretical“!)
- Central method: Description
- Explicit criteria / algorithms for each diagnosis
- Quantitative rather than qualitative criteria
- Comorbidity

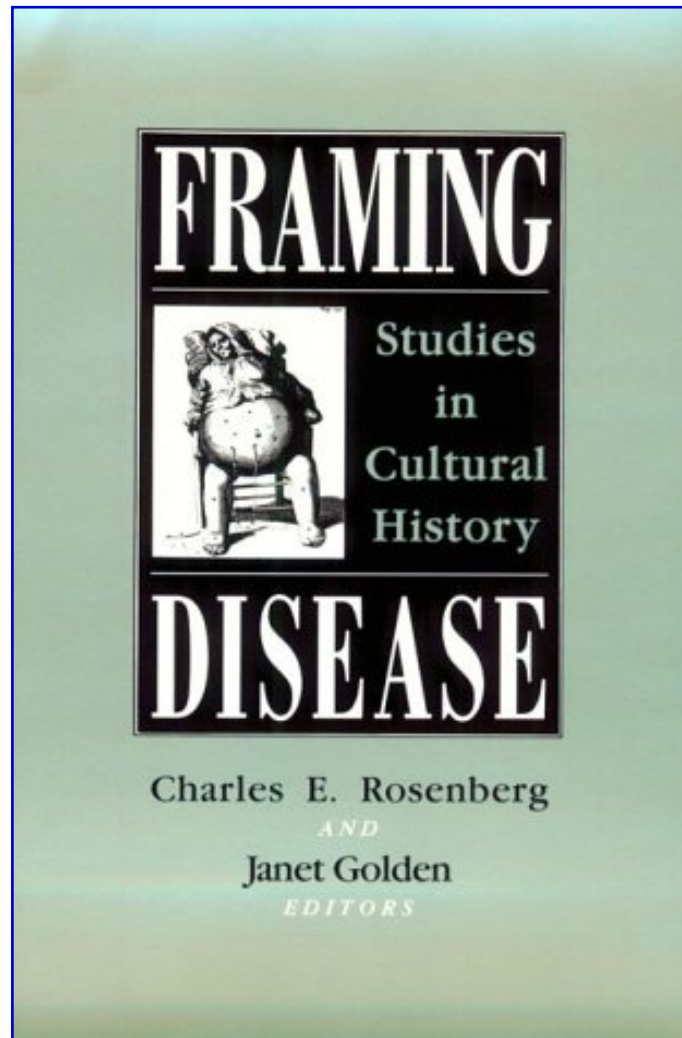




## The main forces behind psychiatric operationalism

- ... to **increase reliability** of psychiatric diagnoses
- ... to provide a diagnostic system **acceptable for different psychiatric schools** (common denominator)
- **NOT: “to carve nature at its joints”**





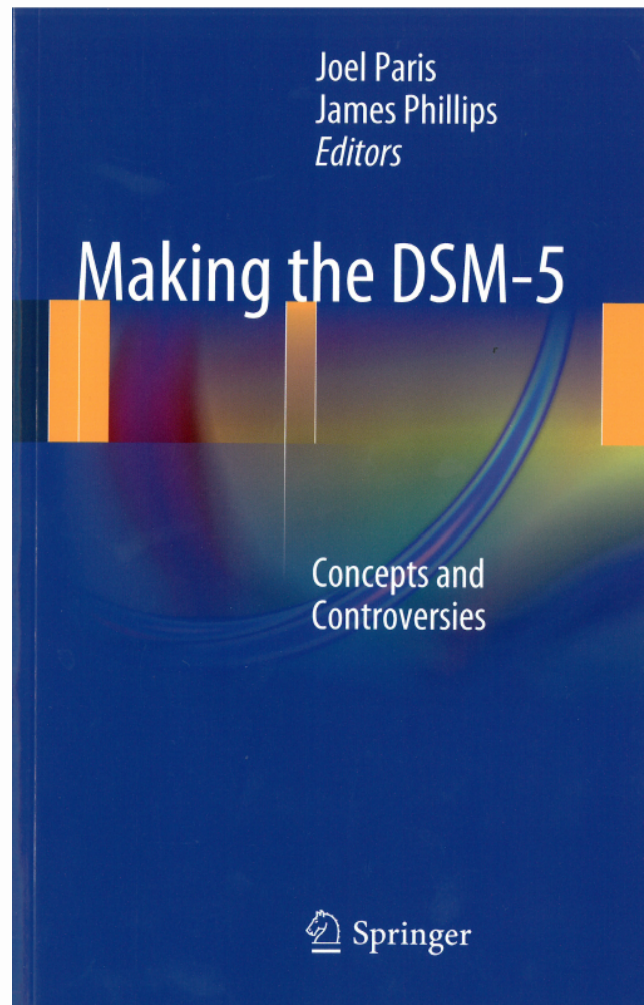
1992

### A constructivistic approach:

„In some ways disease does not exist until we have agreed that it does, by perceiving, naming, and responding to it.“



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2013

## A critical analysis



# Controversial issues ...

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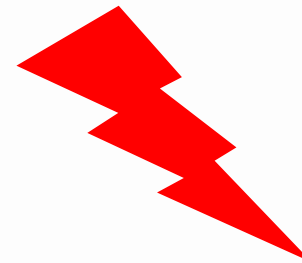
DSM-5 HANDBOOK of Differential Diagnosis

DSM-5 SELF-RATING Test Questions and Diagnostic Criteria

STUDY GUIDE to DSM-5

DSM-5 Pocket Guide to Diagnostic Criteria

2013



**saving**

**nor•mal** (nôr'n)

1. an insider's revolt against out-of-control psychiatric diagnosis, DSM-5, big pharma, and the medicalization of ordinary life

**Allen Frances, M.D.**  
Chair of DSM-IV Task Force



## (4) Denosologization

- Nósos (νόσος) f
  - sickness, disease,
  - plague
  - misery, suffering, distress
  - madness, vice
  - bane





Dialog Clin Neurosci 2015, 17: 6-7



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# Guest editorial

## Why do we need a diagnosis? Maybe a syndrome is enough?

Norman Sartorius, MD, PhD, FRCPsych

### Abstract

*The recent publication of the Diagnostic and Statistical Manual of Mental Disorders 5.1 by the American Psychiatric Association, and the continuing work of the World Health Organization on the 11th revision of*

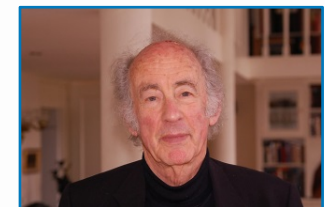
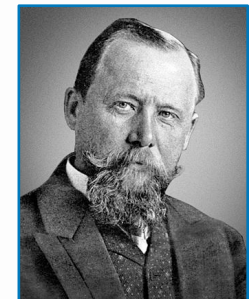
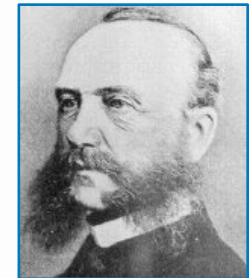
into categories? Why do we not report on our work in terms of symptoms which are sometimes the main target for investigation and treatment? Why do we not use categories describing the level of impairment or the degree of disability when talking about patients? and so on.

The abundance of questions of this type is the sad consequence of the fact that science and experience have so far failed to define a single disease in the field of psychiatry. The term “disease” can be used for conditions for which we have: (i) discovered the causes; (ii) understood the pathogenesis, (iii) comprehensively described the clinical picture and the reaction to treat-



# What is denosologization?

- The idea of denosologization **opposes reification** of mental illnesses (albeit for quite different reasons) (e.g. Griesinger, Hoche, van Praag, **RDoC**).
- **Central idea:** The strict orientation on on classical nosological entities **will not support, but impede and restrain** psychiatric research.







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MEDICINE

# Brain disorders? Precisely

Precision medicine comes to psychiatry

By **Thomas R. Insel** and **Bruce N. Cuthbert**

**M**ental disorders represent a public health challenge of staggering proportions. In the most recent Global Burden of Disease study, mental and substance abuse disorders constitute the leading source of years lost to disability from all medical causes (1). The World Health Organization estimates over 800,000 suicides each year globally, nearly all of which are a consequence of a mental disorder (2). These high morbidity and mortality figures speak to the potential for overall health gains if mental disorders can be more effectively diagnosed and treated. Could a “precision medicine” approach find traction here?

Precision medicine—a more targeted approach to disease—is already becoming a reality in cancer, where molecular diagnosis is leading to better defined, individualized treatments with improved outcomes (3). Precision medicine is also the basis for planning large-cohort studies, using genomics and phenotyping (physiological and behavioral characteristics) to improve diagnostics and therapeutics across medicine. The idea is to integrate clinical data with other patient information to uncover disease subtypes and improve the accuracy with which patients are categorized and treated.

health disorders” or “mental disorders” or the awkwardly euphemistic “mental health conditions,” when juxtaposed against brain science, invite continual recapitulation of the fruitless “mind-body” and “nature-nurture” debates that have impeded a deep understanding of psychopathology. The brain continually rewires itself and changes gene expression as a function of learning and life events. And the brain is organized around tightly regulated circuits that subservise perception, motivation, cognition, emotion, and social behavior. Thus, it is imperative to include measures of both brain and behavior to understand the various aspects of dysfunction associated with disorders. Shifting from the language of “mental disorders” to “brain disorders” or “neural circuit disorders” may seem premature, but recognizing the need to incorporate more than subjec-

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*“...syndromes once considered exclusively as ‘mental’ are being reconsidered ... as syndromes of disrupted neural, cognitive, and behavioral systems.”*



**Brain disorders? Precisely**  
Thomas R. Insel and Bruce N. Cuthbert  
*Science* 348, 499 (2015);  
DOI: 10.1126/science.aab2358



University of  
Zurich<sup>UZH</sup>

# Research Domain Criteria (RDoC)

## Denosologization, most advanced



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### Deconstructed, parsed, and diagnosed.

A hypothetical example illustrates how precision medicine might deconstruct traditional symptom-based categories. Patients with a range of mood disorders are studied across several analytical platforms to parse current heterogeneous syndromes into homogeneous clusters.

#### Symptom-based categories

Major depressive disorder



Mild depression (dysthymia)



Bipolar depression



#### Integrated data

- Genetic risk  
polygenic risk score
- Brain activity  
insula cortex
- Physiology  
inflammatory markers
- Behavioral process  
affective bias
- Life experience  
social, cultural, and environmental factors

#### Data-driven categories

Cluster 1



Cluster 2



Cluster 3



Cluster 4



Prospective  
replication and  
stratified clinical  
trials





# The next step: «Network psychiatry»

**VIEWPOINT**

## Precision Psychiatry Meets Network Medicine

### Network Psychiatry

**David Silbersweig, MD**  
Department of Psychiatry, Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts.

**Joseph Loscalzo, MD, PhD**  
Department of Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts.

**Overview**  
Psychiatric medicine is now advancing from solely descriptive disease classification toward a biologically based taxonomy. This evolution is more protracted than for other branches of medicine given the complexity of the neural systems that underlie human mental function and the challenge of characterizing psychiatric phenotypes objectively and quantitatively. The ultimate goal of this exercise is to describe the mechanistic and phenotypic variability within and across traditional diagnostic boundaries in a manner that identifies risk and resilience factors, provides early detection, predicts clinical outcomes, and specifies targets for trajectory-altering therapeutics and prevention.

The *DSM-III* classification of the American Psychiatric Association has been helpful in this regard by standardizing the assessment of symptoms and syndromes

integrated dynamics of physiological adaptation,<sup>3</sup> environmental effects, and drug effects. Essentially, network medicine represents the next stage of precision medicine and illuminates the functional interactions among the multifactorial elements of human disease expressions and treatments.

The value of this approach was first demonstrated in internal medicine. For example, the common endophenotypes governing all human diseases comprise unique modules within the interactome—the inflammasome, the thrombosome, and the fibrosome—that overlap with each other as a consequence of common pathways and with most disease modules, or clusters of interacting molecular mediators of a disease that are discretely localized within the interactome.<sup>4</sup> The exposome (environmental exposures), social determinants of health,<sup>5</sup> the microbiome, patient behavior, patient-

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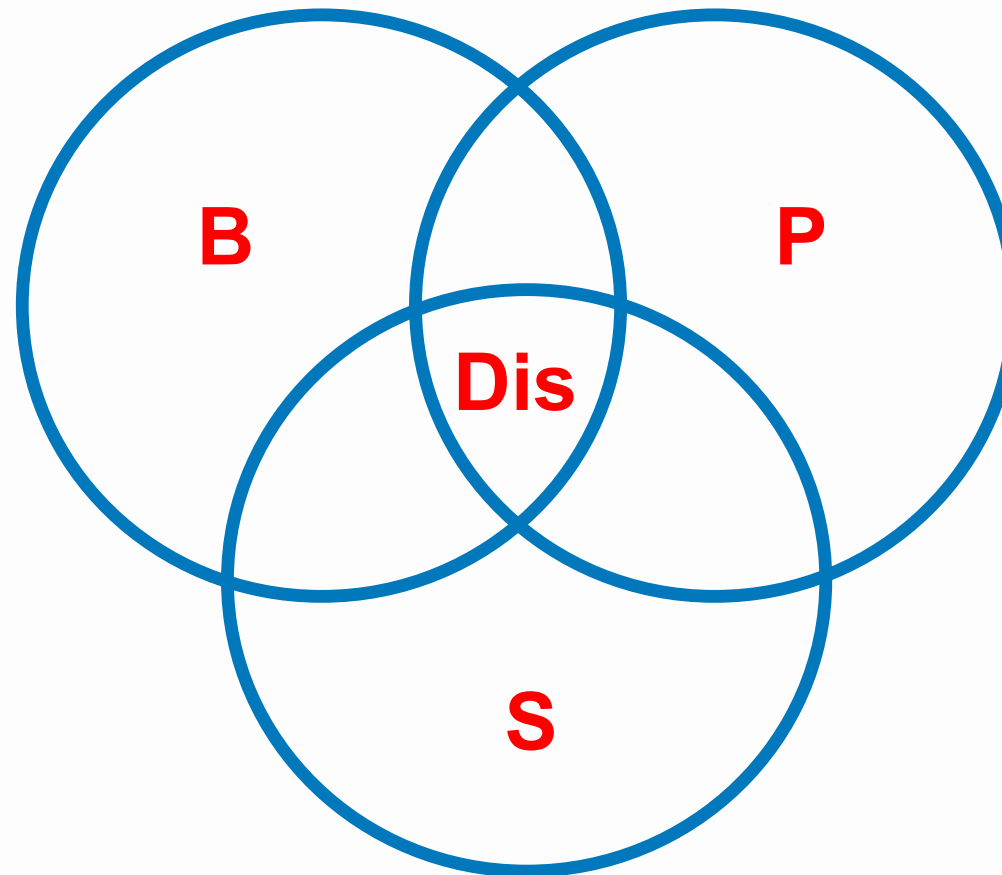




# Bio-psycho-social model:

Well balanced, but less  
substantial than it looks ...

**B**iological,  
**P**sychological,  
**S**ocial factors  
→ Mental  
**Dis**order





# ... and seriously questioned recently

BJPsych

The British Journal of Psychiatry (2009)  
195, 3–4. doi: 10.1192/bjp.bp.109.063859

## Editorial

# The rise and fall of the biopsychosocial model

S. Nassir Ghaemi



### Summary

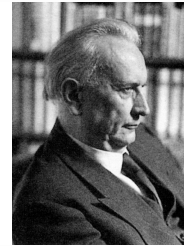
The biopsychosocial model is the conceptual *status quo* of contemporary psychiatry. Although it has played an important role in combatting psychiatric dogmatism, it has devolved into mere eclecticism. Other non-reductionistic approaches to medicine and psychiatry such as William Osler's medical humanism or Karl Jaspers' method-based psychiatry should be reconsidered.

### Declaration of interest

In the past 12 months, D.G. has received a research grant from Pfizer and honoraria from Bristol-Myers Squibb and AstraZeneca. Neither he nor his family hold equity positions in pharmaceutical corporations.







# Psychopathology

is more than counting symptoms

- Shaping scientific terms continuously
- Operational description (quantification, algorithms)
- Qualitative approaches (subjective experiences, interpersonal and hermeneutic dimensions)

**practical**

- Critical reflection on methods
- Drawing from the history of psychiatric concepts
- Integrating philosophical topics (e.g. mind-body-relation, subject-object-relation, personhood, autonomy)

**theoretical**



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What will happen to the concept of  
mental disorders in the 21<sup>st</sup> century?

## Résumé

- 1 Classical nosological terms (e.g. schizophrenia) will **continue to lose influence**, especially if they claim to represent “natural disease entities”.





What will happen to the concept of  
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## Résumé

**2** Psychiatry will move away from single-level-perspectives towards a matrix- or multi-level approach linking different research methods.

This process encourages a more modest and more flexible concept of mental disorders.





What will happen to the concept of  
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## Résumé

**3** However, it bears the risk of decontextualizing or “atomizing” psychiatry and of separating it from clinical medicine.

What we strongly need is a coherent theoretical framework reaching far beyond the enumerative character of the present bio-psycho-social model.





What will happen to the concept of  
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## Résumé

4 Any future theory of psychiatry could draw upon a “revitalized” psychopathology in the line of Jaspers and Kronfeld.

The ultimate goal is a non-reductionist reconciliation of psychiatry’s neurobiological, psychological and anthropological dimensions.





What will happen to the concept of  
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## Résumé

**5** Psychiatry will have to **keep clear of any “ivory tower mentality”**.

“Open psychiatry” also addresses research and the future identity of the field. **Patient autonomy and participation** will gain influence with regard to psychiatric nosology and diagnosis.



Zurich

Summer 2014



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**Thank you  
very much for  
your attention!**

