

# **Schizophrenia, neuro-development and the self**

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# Some research problems

We have no idea how to account for phenomenal consciousness, a predicament impeding formation of a plausible pathogenetic theory

Reliability-driven historical drift in the concept of schizophrenia

Fuzzy boundaries of the schizophrenia concept

Mechanic and simplistic causality models and lack of readily applicable complex models

Avalanche of non-theory driven empirical findings, which are difficult to integrate

**Jansson L, Parnas J.** *Competing definitions of schizophrenia: what can be learned from poly-diagnostic studies?*

**Schizophr Bull.** 2007;  
33(5):1178-200

# Main Results

- **# of sz patients may vary by factor 3**
- **FRS do not predict course**
- **Chronicity** at first examination predicts itself at a follow-up
- **Moderately higher reliability** for the most recent systems
- **No solid evidence for a superior validity of any of the systems**

**Jansson L, Handest P, Nielsen J, Sæbye D,  
Parnas J.**

*Exploring boundaries of schizophrenia: a  
comparison of ICD-10 with other diagnostic  
systems in first-admitted patients.*

**World Psychiatry.** 2002; 1(2):109-114.

Number of patients in the same sample (n=122)  
diagnosed with schizophrenia by 8 systems

- by all 8 systems: 14 patients
- by at least 1 system: 108 patients

**Dementia praecox**-Kraepelin

**AUTISM**

**Schizophrenias**  
(Bleuler)

Schizoidia  
**schizotypy**

Schneider's (simplified)  
**First Rank Symptoms**

**Negative  
Symptoms**

Schizo-Affective  
Disorder

(evacuation of affective  
symptoms from Sz)

Shift to emphasis of psychotic symptoms

**Un-diagnosed hebephrenia,  
(non-paranoid Sz.), e.g. diag-  
nosed as PD, affective, etc.**

**DSM-IV; ICD-10**

**DSM-V—?**

# Neo-kraepelinian programmatic statement

Lee Robins and James Barrett in 1989

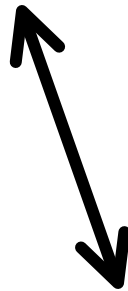
Validity of psychiatric diagnosis  
is considered as a problem of  
matching clinical entities with  
'real' processes of nature  
("carving nature at its joints")



## CLINICAL-CONSTRUCT

i.e.

The schizophrenia spectrum



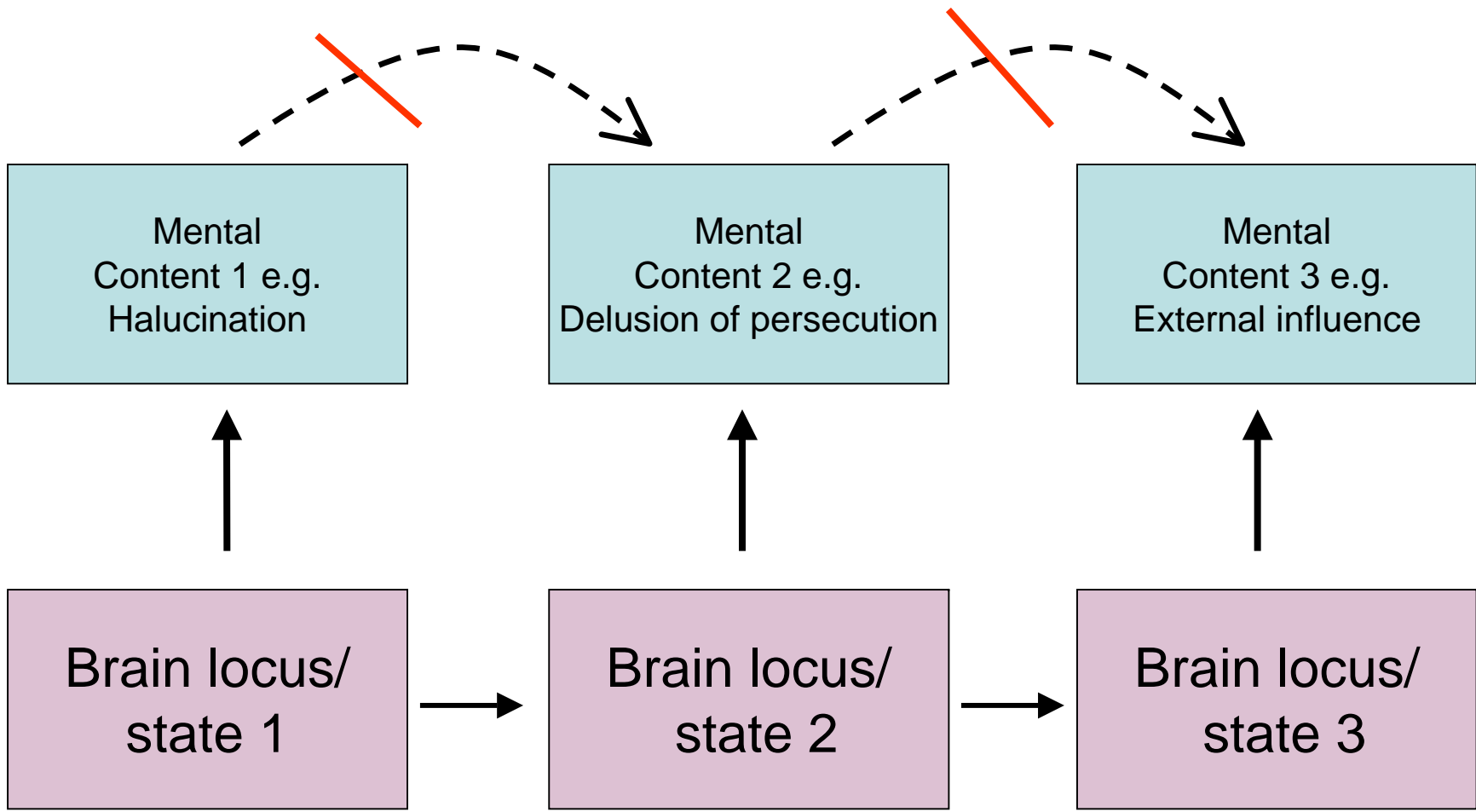
**Elimination/identity thesis**  
Causal **modular** reduction

**Demarcated** segment of the **real world**,  
ultimately disclosed as a  
specific etiology (**focal brain  
disorder**-as a preferred reality)

## **Karl Jaspers & analytic philosophy of mind**

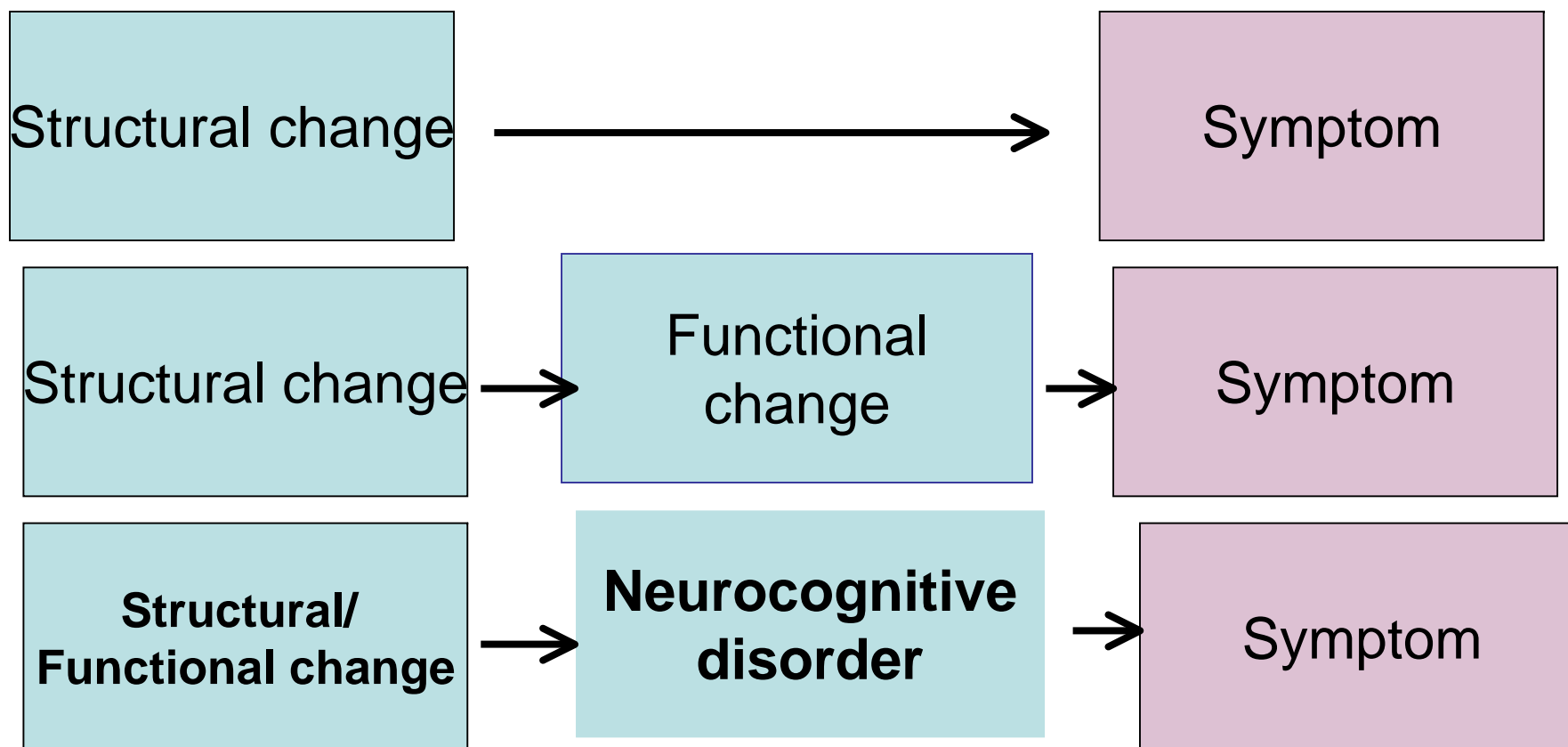
- Explanation versus understanding (Dilthey)
- In schizophrenia, the symptoms are not-understandable (??), and hence can only be addressed on the biological level (faulty logic!)
- Process vs. Development
- Mental causation presupposes overall rationality

# The chain of mental causation – NKmaterialist view



**BRAIN STATE – TYPE (or TOKEN)**

## Models of symptom origin in NK psychiatry: examples

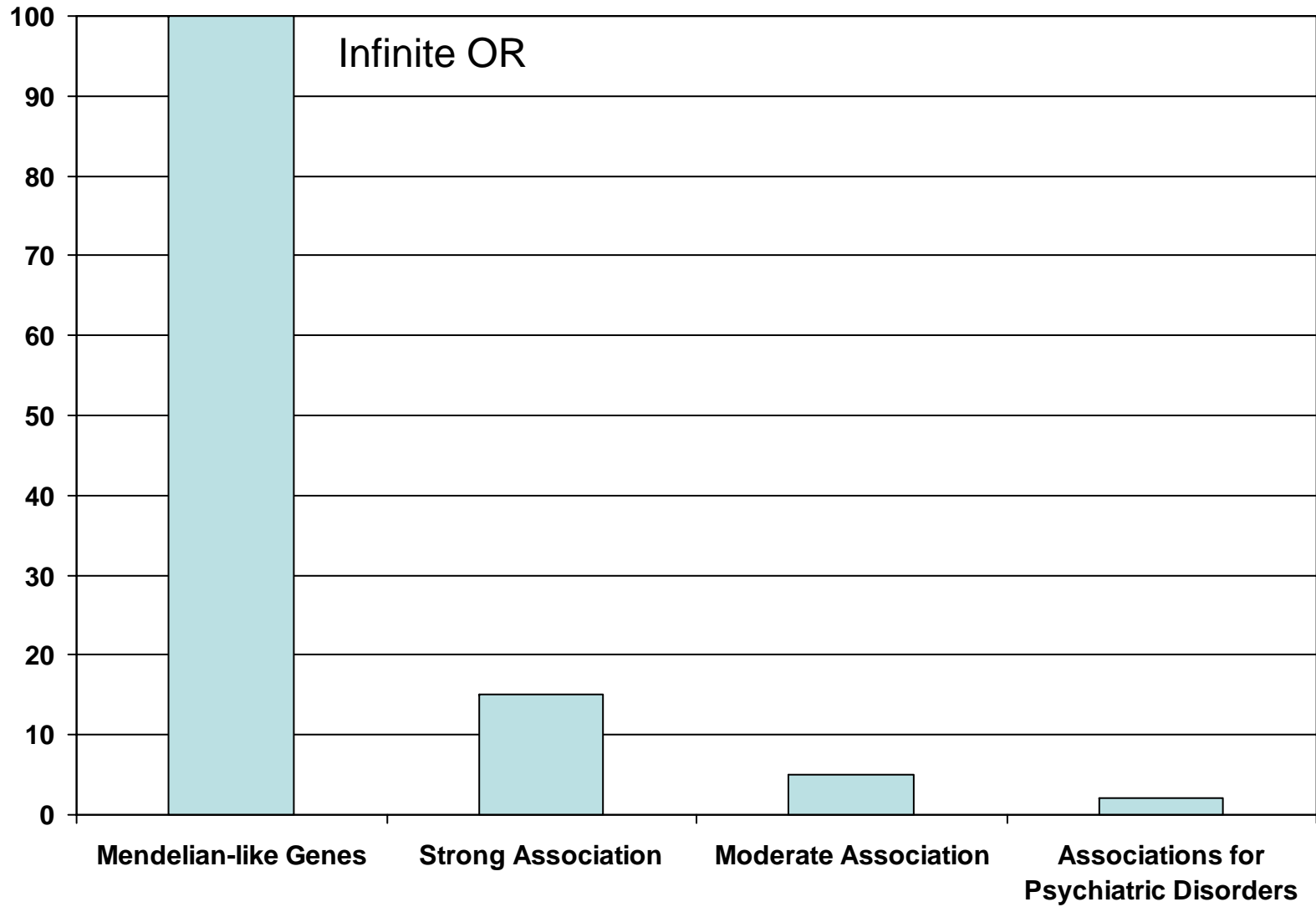


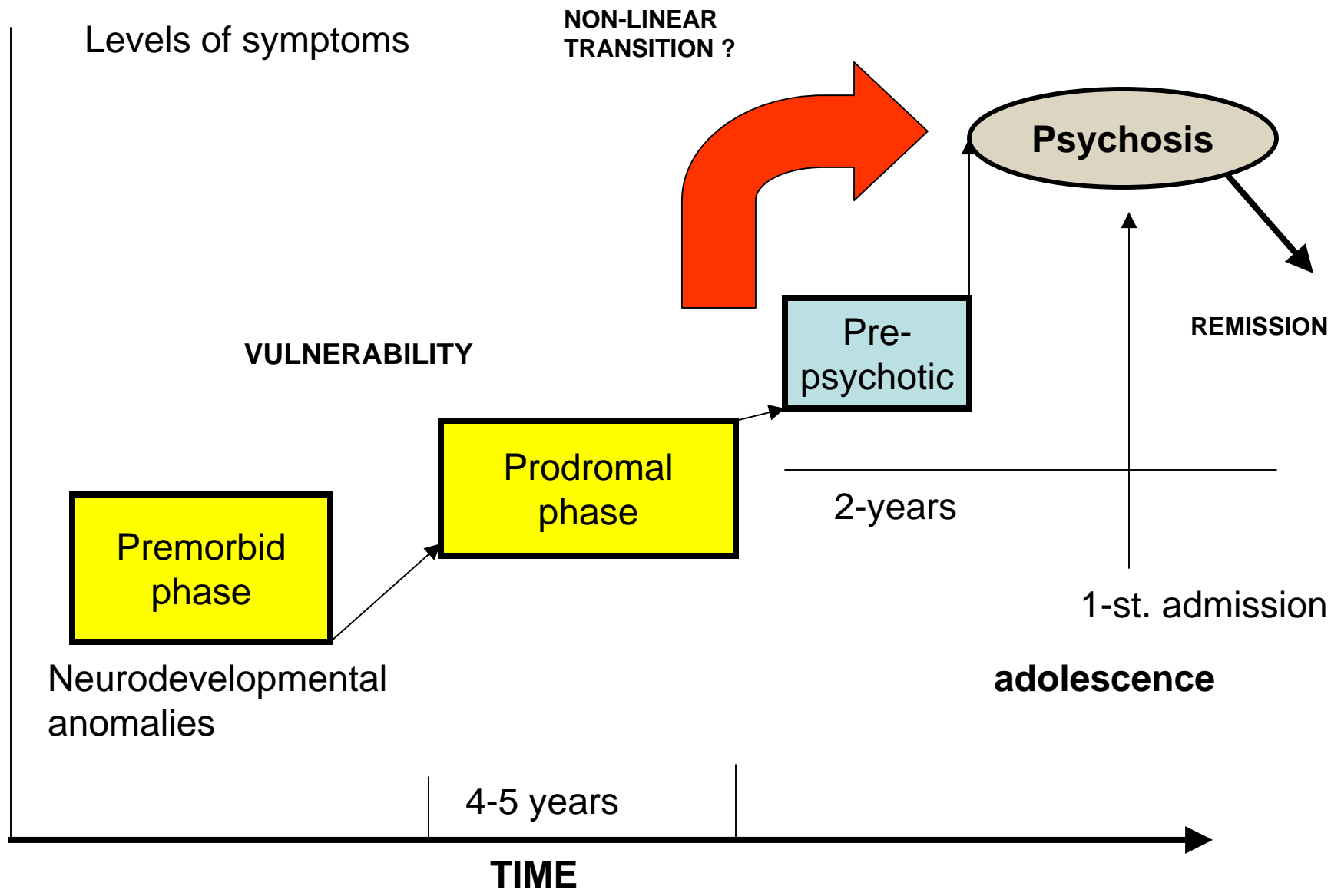
# Massive empirical findings

- Epidemiology
- Genetics ('endophenotypes')
- Neuropsychology (neurocognitive disorders)
- Cognitive and experimental psychology
- Neurophysiology
- Imaging studies
- Functional imagery
- .....

OR

From Kendler, 2005.





## **Neurodevelopmental hypothesis: a mixture of descriptive and potentially causal factors**

- Barbara Fish's HR-study: **Pan-dys-maturation syndrome** (other HR studies)
- Pregnancy- & birth complications (Cph HRS)
- Delayed or erratically evolving **milestones**
- Early emotional deprivation (Cph HRS)
- Prenatal infections and malnutrition
- Behavioral, cognitive and emotional deviations
- Lower premorbid IQ

**Multiple neurobiological accounts (e.g. cell migration, pruning, cell death, apoptosis, dis. of tissue architecture, synaptic anomalies etc.)**

**Need for a more interactive organism-world account**



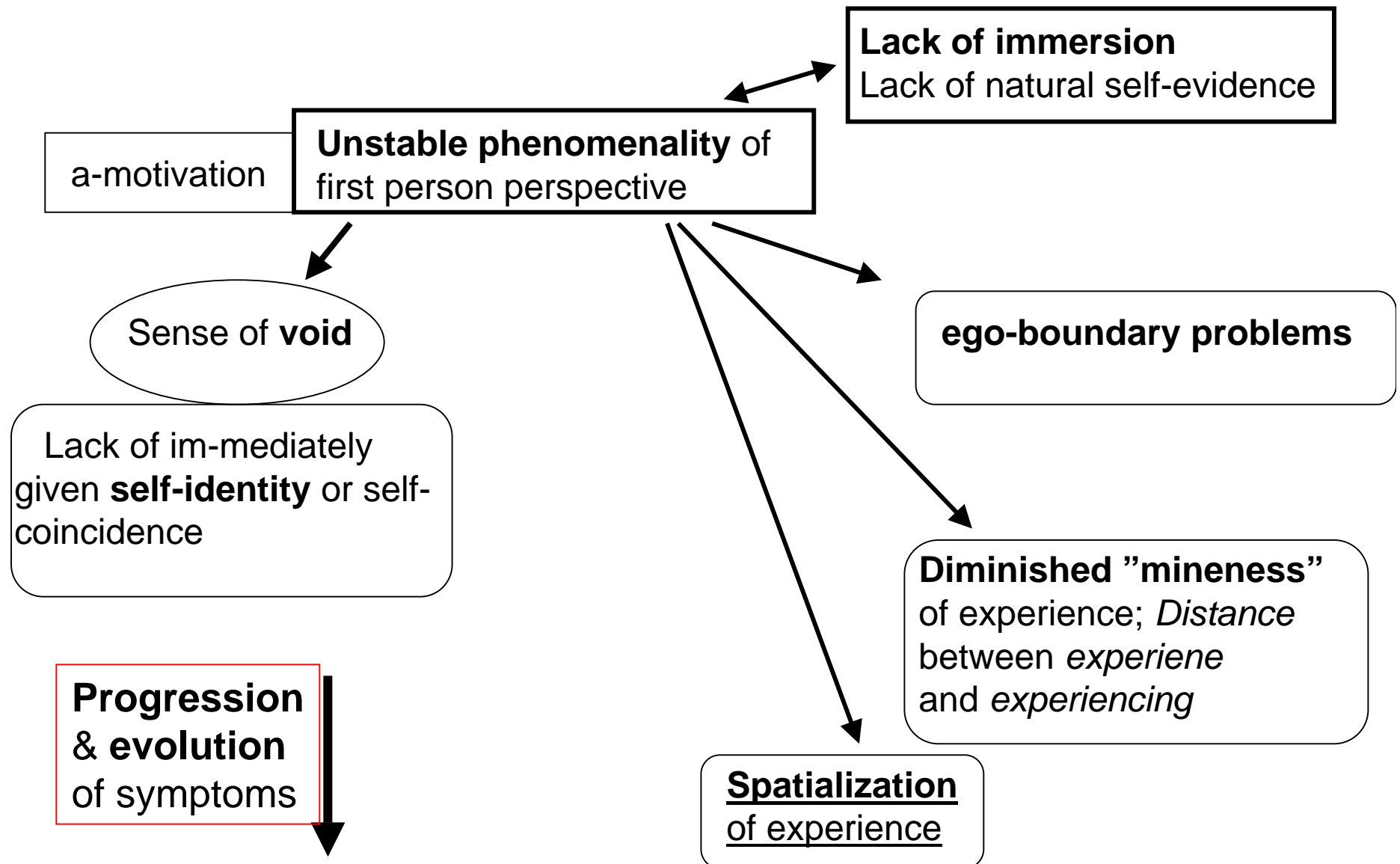
## **Triadic autistic vulnerability to schizophrenia: phenomenology of 'trouble générateur'**

- Disorder of **intentionality** and of **intersubjectivity**: Loss of meaning, perplexity, hyper-reflectivity, loss of 'common sense', alienation
- **Disorders of self-experience (Selbstbewusstsein)**

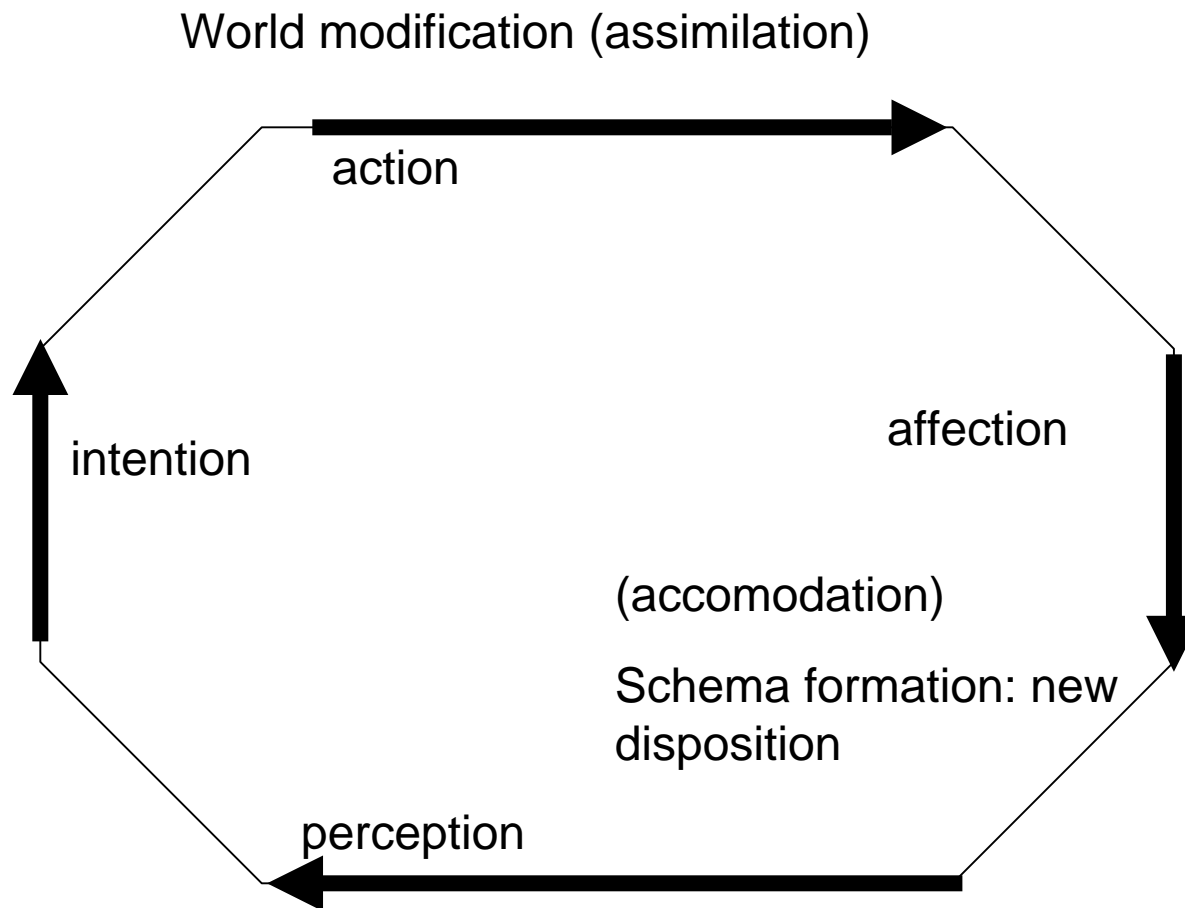
# Pre-reflective self-awareness

- Directly given **pre-reflective** self-awareness (ipseity). On each experience or experiential 'flare-up', a structure has always a character of "mineness" or of **first person perspective**
- **"Minimal self"**
- **Examples** *perception, thought, feeling, action*
- Self-feeling of *sentience*, luminosity, self-awareness of the 'stream of consciousness', 'auto-affection', "non-observational" self-awareness, "non-introspective" self-awareness, immunity to error of first person mis-identification, basic self-identity, etc.

## Autistic self-pathology



# Interaction as Gestaltkreis (revolving door)



# Neurodevelopmental aspects worth scientific interest

**Self-non-self** discrimination (imitation)

**Cross-modal** perception

**Amodal** perception (rythm, affective contour)

**"Primary groupings"** (Piaget) as the initial proto-conceptual prelinguistic categories (affordances)

Detection of **sameness** (Rochat)

Primary **intersubjectivity** (empathy)

Reflective self-awareness

Joint attention..etc

....

'Common sense'

Basic trust

Language development

# Directions of research

- To clarify conceptual issues and develop appropriate vocabulary
- To describe neurodevelopment (also) in psychologically adapted terms
- To link developmental and phenomenological approaches
- To constrain the empirical research by more specific hypotheses ("theory guided" research)