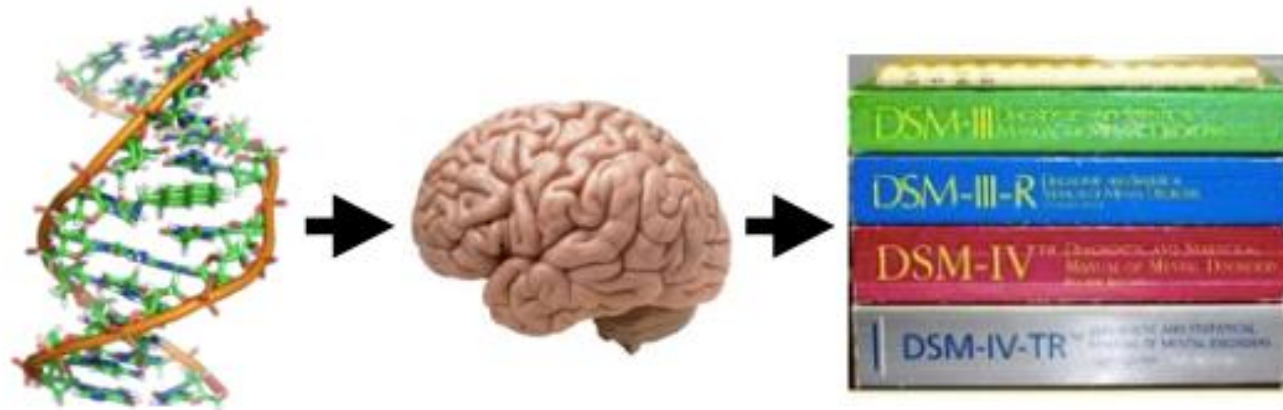


# The network approach

# Reductionist daydreaming...

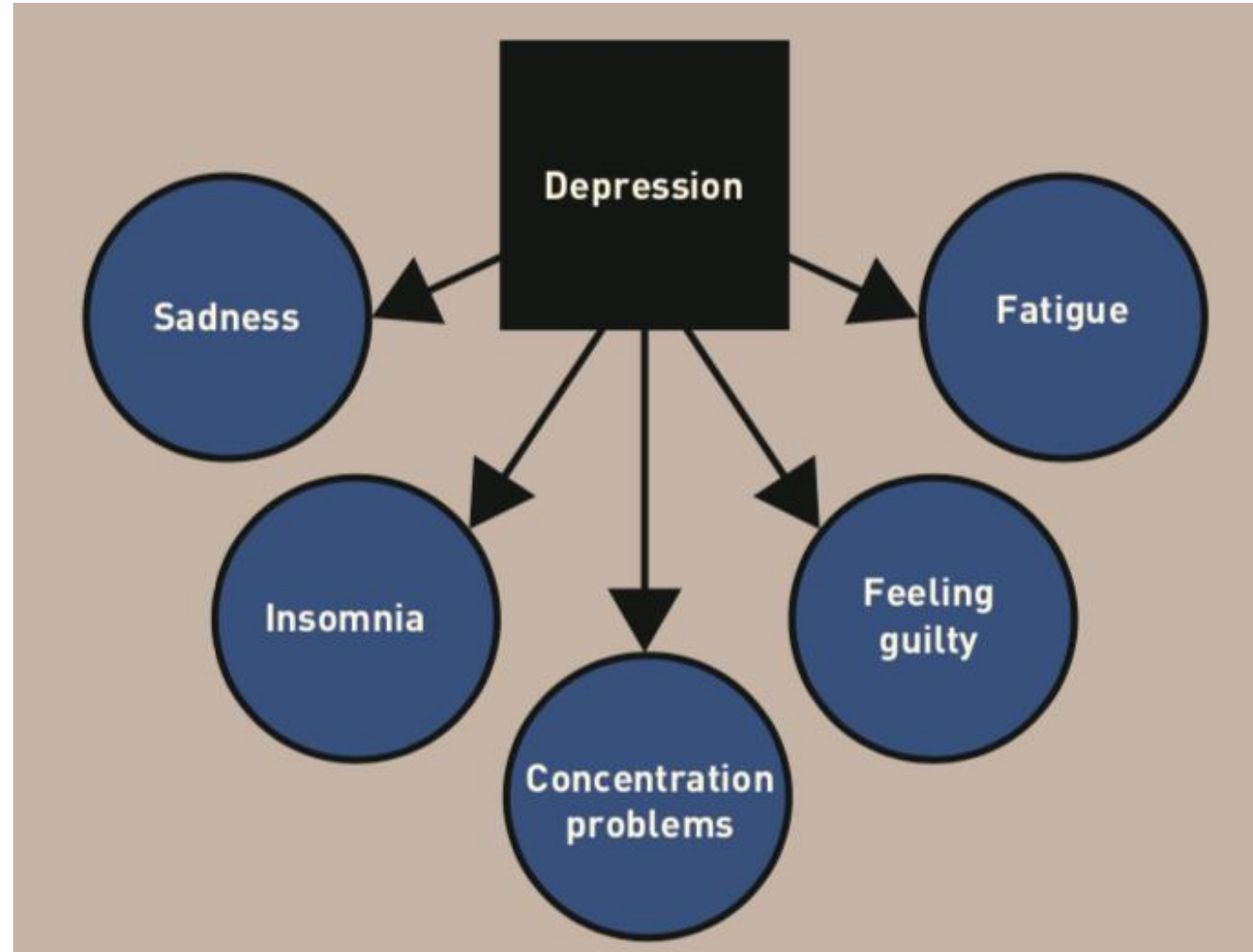
- What is the nature of psychopathology?
- Current view in DSM: criteria for classification of mental disorders
- Criteria (= symptoms) are manifestations of underlying entity (disorder)



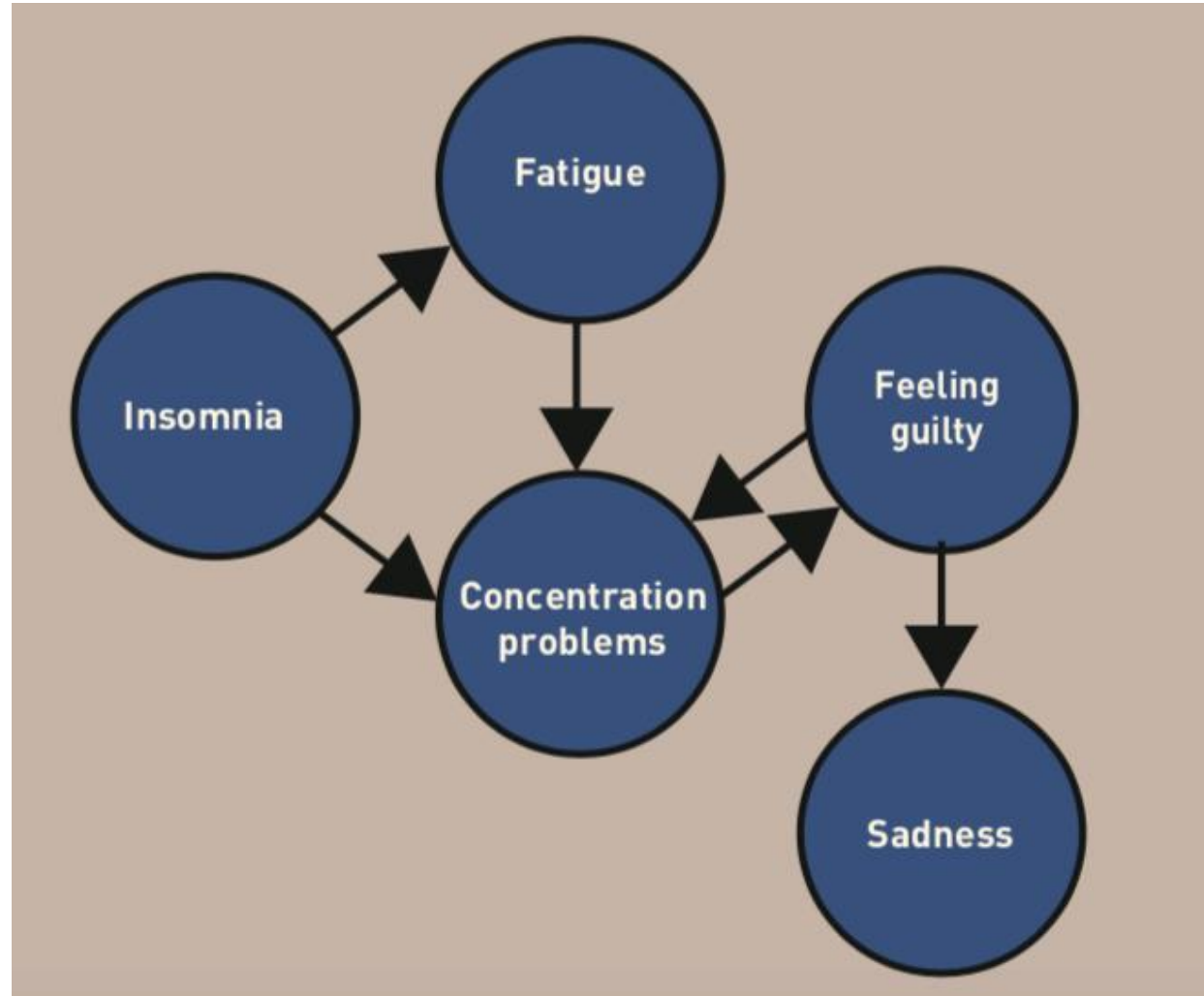
# Some problems

- No convincing neuroscience / genetic studies demonstrating biological cause psychiatric disorders
- Validity and reliability of psychiatric diagnoses questionable
- The relations between individual symptoms are neglected
- Translating daily symptoms / problems / distress into categories of psychopathology medicalizes everyday problems

# The standard model: the common cause approach



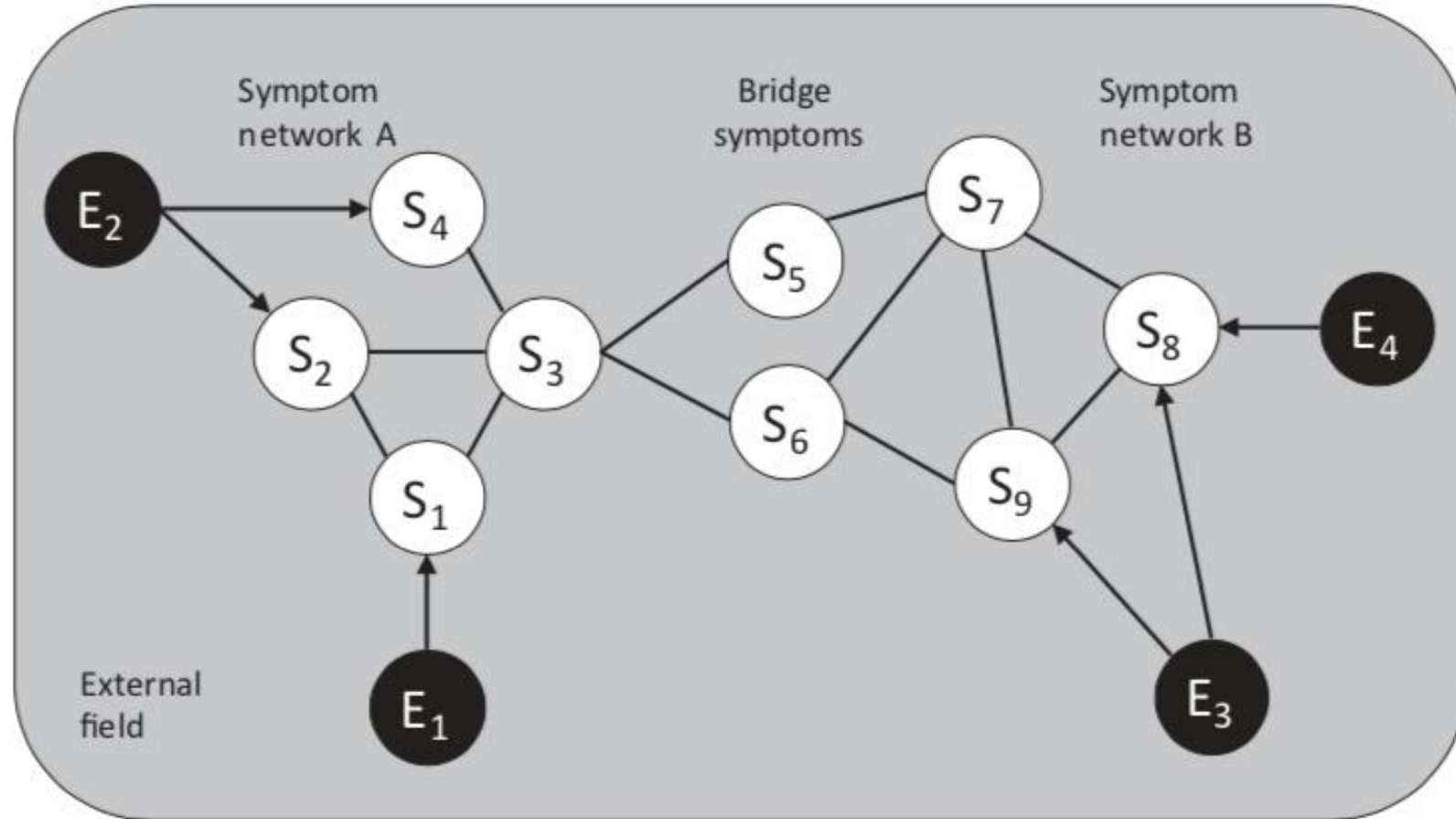
The network approach:  
dynamic system of causally related symptoms



# Different kind of symptoms

- The network approach was applied in large epidemiological databases mental health disorders (Fried, 2017)
- Identification of **'central symptoms'** and **'bridge symptoms'**

# External factors, bridge symptoms and comorbidity



# Depressed state

- The network may occur in many people, but why do some people develop or stay in a depressed state?
  - Different types and numbers of external triggers with different effects  
(divorce vs stressful day)
  - Varying roles of symptoms in network (central and bridge symptoms)
  - Strength of connections and thresholds
  - Internal vs external locus of control
- Roles of individual symptoms differ across different patients (personalisation of treatment!)



# Treatment possibilities

Intervention possible at 3 levels

- External triggers or symptoms

Eliminate external triggers if possible

- Central symptoms

Treat specific symptoms and improvement in other symptoms

- Connections between symptoms

Destroy connections; feeling guilty over concentration problems

# Consequence for primary care?

- Network approach stimulates to focus on specific symptoms, external triggers, and causal relations
- Stay close to the patient's words, experience, and perception
- GP has excellent position to assess roles of symptoms in patient specific network
- If patient monitors symptoms data driven network can be constructed
- Each symptom can develop a full blown depression: early intervention!

# Mapping the manuals of madness: Comparing the ICD-10 and DSM-IV-TR using a network approach



Figure 2. Visualization of the ICD-10 (left) and DSM-IV-TR (right) criteria space. Criteria are represented as nodes and connected whenever they occur in the same disorder. Colour of nodes (middle) signifies the disorder class in which they occur most often. The DSM-IV-TR criteria space is from “The Small World of Psychopathology” by D. Borsboom, A. O. J. Cramer, V. D. Schmittmann, S. Epskamp, and L. J. Waldorp, 2011, Plos ONE, 6, p. 3. Adapted with permission.