

RECALL OF PREVIOUSLY LEARNED ASSOCIATIONS AND MEMORY GENERALIZATION IN SCHIZOPHRENIA, OTHER PSYCHOSES, SIBLINGS, AND CONTROLS. THE NORTHERN FINLAND 1966 BIRTH COHORT STUDY

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Introduction: Neurocognitive impairments are a core feature of schizophrenia. The medial temporal lobe (MTL) is a brain region associated with declarative memory important in conscious acquisition and recollection of facts and events. The basal ganglia (BG) instead are linked to non-declarative memory functions such as gradual learning of skills and habits.

Objective: Acquired equivalence (AE) is a phenomenon in which prior training to treat two stimuli as an equivalent increases generalization between them. Our objective was to study this phenomenon in birth cohort setting.

Aims: To investigate whether the recall of previously learned associations and memory generalization are declined in schizophrenia, other psychoses and siblings compared to healthy controls.

Methods: The Northern Finland Birth Cohort 1966 is based upon 12, 068 women and their 12, 058 live-born children. The modified Rutgers AE-task was performed for 35 schizophrenia patients, 26 patients suffering from other psychosis, 18 siblings of psychotic subjects and 174 controls.

Results: The behavioral data showed statistically significant impairment in both recall of learned associations and generalization in schizophrenia and other psychosis groups compared to control subjects. Siblings did not differ significantly from controls in recall of learned associations but they showed impairments in generalization.

Conclusions: Impairment in recall of learned associations and memory generalization seem to be present also in other psychotic disorders, not only in schizophrenia. Since decline in generalization was seen in addition in siblings the hypothesis that declarative memory could be one of endophenotypes of schizophrenia is supported by this study.