Mental Time Travel in First Degree Relatives of Schizophrenia Patients

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introduction

Mental Time Travel

- "The faculty that allows humans to mentally project themselves backwards in time to re-live, or forwards to pre- live, events (Suttendorf & Corballis, 1997)."
- MTT contributes to develop and consolidate the identity and the sense of individuality.
- "The representation of self as an entity extended in time is closely related to the ability to remember one's personal past and the ability to project oneself into the future (Wheeler, Stuss, & Tueting, 1997)."

Method

- "Version fonctionnelle unipolaire ultra courte" (unpublished)
  - It is an original scale from L.A.B.E.L (Gérard et al., 2000) where the participants can describe themselves;
  - 2 parallel versions of the questionnaire that contain 35 subjective personality traits each of them being used;
  - A comparison between the 2 versions allows to investigate the identity stability.

Results

- Cognitive functions measures
  - Digit Span Forwards (Wechsler, 1997);
  - Digit Span Backwards (Wechsler, 1997);
  - Stroop-Color Word Test (Stroop, 1935);

Discussion

- Such as previous study, schizophrenia patients performed less on cognitive functions, identity stability and MTT tasks in comparison to healthy subjects.
- On the contrary to our hypothesis, there were no differences between relatives’ performances and healthy subjects’ performances as shown by results obtained in this study. There is however two exceptions: (1) interference cue STROOP and (2) B part from Trail Making Test.

No study has assessed the abilities to MTT in the relatives yet despite some deficits in schizophrenia patients:
1. to retrieve specific memories;
2. to project into specific future events;
3. to define their identity in a stable way (which has also been described as fragmented unstable or discontinuous in Schizophrenia patients).
4. the ability to MTT might be a relevant endophenotypic marker.

Healthy Subjects > Relatives > Schizophrenia Patients

- on:
  - Remembering specific events
  - Projection into future events
  - Identity stability
  - Cognitive functions

Hypotheses

Phenotypic marker

- "Characterization that mark the presence of a genetic predisposition to a mental disorder or disability"