Intra-individual variability in high-functioning patients with schizophrenia.

Abstract:

Intra-individual variability of reaction times (IIV) can be employed as a measure of the stability of information processing, which has been proposed to be fundamentally disturbed in schizophrenia. However, the theoretical and clinical significance of IIV is not clear, in part because it has previously been investigated in subject groups with generalized cognitive impairment. Therefore, the purpose of the study was to assess IIV in high-functioning patients with schizophrenia and relatively preserved cognitive performance. 28 high-functioning patients with schizophrenia and 28 controls performed a Go/Nogo task and a Continuous Performance Test. In contrast to average measures of task performance, IIV differentiated consistently and with large effect size between groups. Modelling with an Ex-Gaussian distribution revealed that patients have a higher proportion of slow responses reflected by an increased tau parameter. The tau parameter was correlated with work capability in the sample with schizophrenia. In conclusion, IIV is an easily obtained measure, which is highly sensitive to fundamental cognitive deficits not directly visible in a high-functioning patient group. The response pattern with more exceedingly slow reactions could reflect a core deficit in the stability of information processing. The relationship with work capability suggests investigation of IIV as a
clinical measure.