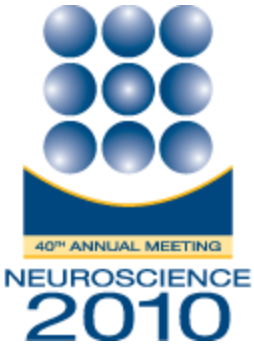

Semantic deficits in category fluency in schizophrenia and bipolar disorder

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Abstract:
Schizophrenia (SZ) and bipolar disorder (BD) are thought to represent fundamentally different mental disorders. In some previous studies, (e.g., Lebowitz et al 2001; Rossell 2006) patients with BD have shown reduced word list generation on tests of letter-cued fluency (generation of words that begin with specified letters) but not category-cued fluency (generation of category exemplars). In contrast, persons with SZ have typically shown impairment on both. In other studies (e.g., Docherty et al 1996; Schretlen et al 2007), patients with BD showed impairments on both types of fluency tasks, but the degree of impairment was relatively small compared to that of patients with SZ. Despite these mixed results, some important aspects of semantic fluency deficits in BD, such as semantic clustering of words, have not been thoroughly examined and compared to those seen in SZ. We adapted the singular value decomposition clustering analysis technique to examine semantic clustering patterns of 98 outpatients with BD and 98 age- and sex-matched healthy adult controls (NC). We used two category-cued verbal fluency tasks (animals and supermarket items). We also compared the semantic clustering patterns shown by patients with BD to those previously found among outpatients with SZ (Sung et al in preparation). The BD and NC groups did not differ significantly in overall productivity. However, patients with BD showed different semantic clustering patterns than NCs on both tasks. Further, the clustering pattern differences seen for the BD patients fell between the more extreme patterns shown by patients with SZ and the healthy adults. These results suggest that, while the semantic system may well be intact in patients with BD (and perhaps even in SZ), the way semantic knowledge is accessed appears to be impaired in both conditions to differing degrees. The present findings are consistent with the view that cognitive dysfunction in BD and SZ differs quantitatively more than qualitatively (e.g., Dickerson et al 2000; Schretlen et al 2007).
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