that it may be more relevant to focus on disturbances in strategic or higher level components of language processing.

THE RELATIONSHIPS BETWEEN LANGUAGE PRODUCTION AND THOUGHT DISORDER IN SCHIZOPHRENIA

Deanna M. Barch*, Howard Berenbaum

Western Psychiatric Institute and Clinic, University of Pittsburgh Medical School, 3811 O'Hara Street, Pittsburgh, PA 15213, USA

Numerous theorists have argued that disturbances in language production contribute to thought disorder. However, relatively little empirical work has attempted to directly measure language production (LP) processes and their relationship to specific aspects of thought disorder. Therefore, we examined the association between LP processes and thought disorder using methods derived from cognitive and psycholinguistic research and theory. Thirty-nine DSM-III-R schizophrenic subjects completed tasks measuring discourse planning, monitoring and grammatical-phonological encoding, as well as an interview used to rate thought disorder. We found that different LP processes were differentially related to different thought disorder subtypes. Most strikingly, word-approximations-neologisms were strongly and specifically associated with grammatical-phonological encoding performance. In addition, incompetent references were selectively associated with discourse planning performance. These results have important implications for understanding the multi-faceted nature and etiology of thought disorder. We propose that variability in the expression of thought disorder subtypes and their relationships to LP processes is due to differences in the cognitive mechanisms associated with different LP processes. Specifically, disturbances in different LP processes may be associated with disturbances in either: (1) different information processing mechanisms; or (2) different representational content domains.

THE STABILITY AND INTERRELATIONSHIPS OF CPT-AX AND STROOP PERFORMANCE IN SCHIZOPHRENIA

Deanna Barch*, Jonathan D. Cohen, David Servan-Schreiber, Rohan Ganguli

Clinical Cognitive Neuroscience Laboratory, Western Psychiatric Institute and Clinic, University of Pittsburgh Medical School, 3811 O'Hara Street, Pittsburgh, PA 15213, USA

We examined the performance stability of patients with schizophrenia in novel variants of the Continuous Performance Test (CPT-AX) and the Stroop task. Previous research suggests that deficits on both tasks may reflect a disturbance in the processing of contextual information in patients with schizophrenia. We used variants of the CPT-AX and Stroop designed to assess the maintenance of contextual representations by manipulating the delay between context and response. We predicted that delay-related performance decrements would be the most sensitive and stable measures of schizophrenic deficits on these tasks. Performance was assessed at three testing sessions, spanning up to two years. Our results indicated that decreases in performance from short to long delays on both tasks were stable across testing sessions. In general, these difference measures were more stable across testing sessions than absolute performance levels in any individual condition. In addition, there was a trend for performance decrements from short to long delays to be related across tasks. These results suggest that absolute levels of performance may be more subject to practice effects or state differences across testing sessions. As predicted, performance deficits related to the inability to maintain contextual information across delays may tap a more stable deficit in individuals with schizophrenia.

KETAMINE IMPAIRS LEARNING, BUT NOT PROCEDURAL EXPRESSION, ON THE WISCONSIN CARD SORTING TEST

A. Bennett*, D. Abi-Saab, L. Karper, D.C. D'Souza, A. Abi-Dargham, D. Charney, J. Krystal

Yale Univ. Sch. Med., VA Medical Center, West Haven, CT 06516, USA

The Wisconsin Card Sorting Test is sensitive to impairment in frontal cortical function. We have previously shown that ketamine, an antagonist of the NMDA subtype of glutamate receptor produces dose-related impairment in performance on this task. The purpose of the current study was to evaluate the effect of prior experience on the Wisconsin Card Sorting Test on the ketamine-induced performance impairments.

Methods: Healthy subjects ($n=18$) completed three test days during which placebo, ketamine 0.1 mg/kg, and ketamine 0.5 mg/kg were infused over 40 min. A computerized version of the Wisconsin Card Sorting Test was administered on each test day. This report will focus on data collected on the first two test days. Because there were no significant differences between placebo and the low ketamine dose, these groups are collapsed.

Results: On the initial test day, ketamine 0.5 mg/kg increased the number of perserverative errors relative to the group receiving placebo or ketamine 0.1 mg/kg. On the second test day, there were no significant differences between the groups.

Implications: Ketamine increased perseverative errors on the Wisconsin Card Sorting Test when subjects learned the test, but not when expressing a previously learned matching rule. These data suggest that ketamine selectively interfered with