Speech Competence of Children Vulnerable to Psychopathology

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Verbal productivity and cohesion and reference patterns of children of schizophrenics (N = 23), unipolars (N = 43), bipolars (N = 38), and normals (N = 53) were assessed using the Rochester and Martin (1979) evaluation system. Children of all offspring groups could be discriminated from one another, with children of schizophrenics showing the most deviant speech performance across all dependent measures. Children of schizophrenics were less verbally productive and had poorer patterns of cohesion between ideas than children of normals. In addition, they produced more unclear and ambiguous references to previously mentioned ideas than did children of normals. The consistency of deviance and performance on specific dependent variables in these children at risk for schizophrenia was similar to the speech performance of thought-disordered schizophrenics. Possible explanations for these similarities were discussed and evaluated.

Disordered speech in schizophrenia was stated by Meehl (1962) to be a consequence of "cognitive slippage," a process assumed to be present in all persons having a genetic predisposition toward schizophrenia. These predisposed individuals—schizotypes, as he calls them—are also postulated to manifest cognitive slippage when they are not psychotic, including the time before their first psychotic episode. Therefore, evidence of cognitive slippage should be present in some children whose parents are schizophrenic.

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Several reports from high-risk studies of children of schizophrenics have reported cognitive deficits in these children (Harvey, Winters, Wintraub, & Neale, 1981; Oltmanns, Wintraub, Stone, & Neale, 1978; Winters, Wintraub, Stone, & Neale, 1981). These investigations have evaluated cognitive processes with an eye toward finding cognitive deficits in children that parallel those found in adult schizophrenics. One problem with this focus is that deficits in adults, which served as the basis for selecting variables to assess in risk research, have not often been correlated with disordered speech, even though these deficits (e.g., in self-editing) are interpreted as if they caused disordered speech. For this reason, investigations of cognitive deficits alone are insufficient to fully understand the complex phenomena involved in schizophrenic speech disorders. The same complaint holds for high-risk studies. Direct studies of speech are required for full understanding of phenomena present in persons at risk for psychosis.

Rochester and her associates (Rochester, Martin, & Thurston, 1977; Rochester & Martin, 1979) have described a reliable method of evaluating speech production. They studied the disordered speech of schizophrenics using a psycholinguistic evaluation of speech produced in a variety of contexts, and they found that connections between clauses, called cohesion of speech, and repeated references back to presented or presumed ideas, the reference patterns of speech, were often deviant in schizophrenics, especially those rated by clinicians as having thought disorder. Thought-disordered schizophrenics provided fewer links between clauses and used less informative types of cohesive ties. They also referred to nonexistent objects and used ambiguous references. The Rochester et al. method is different from evaluation methods that rely on experimental tasks to assess cognitive processes in psychosis (e.g., studies of word associations) and from studies that evaluate deviant speech productions of psychotics and rate them present or absent according to clinical criteria (e.g., the presence of derailment or blocking). Their method improves on earlier ones in several ways. First, speech is examined at face value, free of inferences as to “underlying thought processes.” Second, the rating categories evaluate phenomena that are present in normals as well as in schizophrenics, allowing for comparisons on the basis of frequency of occurrence.

A problem with many previous studies of speech disorder is that only one diagnostic group, either schizophrenics (Rochester et al., 1977) or manics (Durbin & Marshall, 1977), has typically been studied. Yet, data from other areas, both laboratory investigations of information processing (Oltmanns, 1978) and clinical ratings of speech (Andreasen, 1979), have indicated that thought disorder is not a uniquely schizophrenic phenomenon. Children at risk for different psychoses may thus show dif-