ABSTRACT

A case study is presented of a learning disabled male examined periodically from age 15 to 20 and followed to his present middle age. It is explained that diagnosis of the young man's organic brain damage led to a redirection of treatment for what had previously been identified as schizophrenia. (Cl)
FOLLOW-UP NOTE ON A CASE OF LEARNING DISABILITY

THIRTY YEARS LATER

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Presented At

Third International Scientific Conference of The International Federation of Learning Disabilities

Montreal, August 9, 1976.
ABSTRACT

Follow-Up Note on a Case Of Learning Disability
Thirty Years Later

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Differential diagnostic and treatment issues are presented in a case of a boy examined periodically from age 15 to 20, and followed thereafter to his mid-forties at present. A primary developmental defect, possibly complicated by a subclinical poliomyelitis contributed to his learning difficulties and deviant personality development. Organic psychological test findings gave a definitive diagnostic perspective on the presenting problem, resulting in redirection of the treatment program. This case is a prototype on the continuum of learning disabilities, where the synthesizing function of the motor apparatus is severely impaired while conceptualizing capacity is relatively spared.
INTRODUCTION

We have followed the progress of one youngster now for over 30 years. Originally referred at the age of 15 by Mrs. Schacht, this boy was studied at Southard School, in the Menninger Foundation Child Psychiatry Division by Dr. Kass. (1)

It was in 1946, shortly after World War II, long before "learning disabilities" had replaced "minimal brain damage" as the diagnostic euphemism of the day. Dr. Kass had just come out of the army, having worked in a neuropsychiatric hospital serving brain-injured soldiers, with cognitive, psycholinguistic and perceptual-motor impairments.

Traumatic loss of these central integrative functions had already been observed in World War I and described by Kurt Goldstein. (2,3,4,5) Neuropsychology as a field of specialization was represented in the theoretical formulations of Ward C. Halstead. (6) Developmental deficit functioning and educational remediation in children were gaining recognition through the applied work of Strauss and Lehtinen. (7)

But the post-war era, from the late 1940's through the 1960's, was also a time when psychodynamic theory was in the ascendancy, and motivational rather than deficit diagnoses prevailed in the absence of obvious or "hard" neurological signs. So numerous children with learning and behavior disorders referable to central neuropathology were then treated exclusively in terms of parent-child incompatibilities.
Today, of course, educators, physicians and psychologists are quite alert to the variety of subtle as well as more conspicuous disabilities and deviant behaviors due to pre-natal malformation, developmental error, genetic defect, congenital or early childhood traumata, febrile and other pediatric illnesses affecting cerebral functioning. Differential diagnostic psychological testing, now a standard procedure, also contributes to the study of the child in the areas of a) detection, b) delineation of the nature and scope of deficits, c) delimitation of reversibility and restoration of function, d) estimation of potential for future growth and viability, e) indications for remedial education.

CASE REPORT
Identification and Presenting Problem

Our patient, now a man in his late 40's, was originally observed by Dr. Kass over the span from age 15 to nearly 20:

Jay was a 15-year-old school boy when seen in outpatient examination. The therapist who had previously been seeing Jay advised the family to bring him to us following a serious slump in school work and deterioration in his social behavior. The presenting symptoms included recent failure in his studies despite adequate intelligence, hostile outbursts against his mother, childish social behavior, complete lack of friends, carelessness in personal hygiene, excessive statistical and spectator interest in sports, and life-long poor muscular coordination.

History of the Illness

Jay's emotional disturbance was first seriously recognized about the age of 10 when he began to hit his mother, pulled her hair, called her abusive names, and sometimes locked her in a room. When informed of his behavior by the mother, herself a constant complainer, father nored it because the boy behaved like a perfect gentleman in his essence.
Developmental Progress

Pregnancy and birth were normal. His early childhood was marked by mother's excessive concern about feeding, and oversolicitous protectiveness lest the child contract some disease or come to harm. His least movement was watched to obviate a possible fall. Although his every demand was met, he was hemmed in by many "don'ts".

The family became alarmed when walking was delayed and was not yet present at 18 months, the first reported indication of motor retardation. When he was about 4, attention and devotion of the parents shifted to the care of his older sister who had contracted polio, at which time he developed a psychosomatic skin allergy. He entered public school at the age of 6 and was transferred to a progressive private school at 8. There his poor muscular coordination was noticed and brought to the attention of the parents. He received corrective exercises without much improvement. At 12, he was sent to a military academy. By this time he had become an omnivorous reader with the nick-name of "Little Professor". He read extensively, made no friends, and was repeatedly in the infirmary with inexplicable fevers. A year later, because of a hand injury, he was transferred to another academy as a day student. There he boasted fantasied athletic prowess, antagonized, and was mistreated by the other boys.

He was backward and awkward all of his life in such things as walking, roller skating, riding a bicycle or a scooter. Always clumsy with his hands, it was not until the beginning of his teens that he was even able to tie a double knot. In school he was unable to run well and withdrew from doing anything requiring physical skill. Occasionally,
overcoming the ridicule of the other children, he tried to participate in competitive sports and once made an unsuccessful attempt at learning golf, always to fail completely. As a result he became an avid sports spectator with overweening interest in sports statistics.

His loud, wild, uncontrollable laughter was often socially embarrassing to the parents, as were his carelessness, forgetfulness, sloppiness about his clothes, and spilling of food while eating. He indulged in inapppropriate conversation and was reported to talk and laugh strangely to himself.

Previous Diagnostic Examinations

Over the years, Jay had been seen by numerous pediatricians, physicians, psychologists, and psychiatrists. Prior to coming to the Menninger Foundation, Department of Child Psychiatry, he had been to public school, progressive private school, military academy, and had already had several unsuccessful attempts at psychotherapy. When nearly 14, he was tested by an eminent clinical psychologist who warned of a schizophrenic development. Jay then took treatment with a psychiatrist and soon his abuse of mother diminished, his school grades improved, and he seemed to behave more maturely. But after a little over a year he relapsed and his behavior precipitated the referral to us.

Up to this point, despite the obvious motor retardation and gross muscular incoordination, central organic pathology was not diagnosed, while therapeutic attention all went to the social withdrawal, schizoid characteristics, disturbed behavior, and poor school adjustment. It is noteworthy also that organic brain damage remained unsuspected in the previous psychological test study, although it was competently administered and interpreted. This study had correctly called attention to the presence of peculiar ideation of a schizoid variety, noted the boy's emotional withdrawal, and warned of the schizophrenic direction in which
Jay was heading. The tests administered, however, consisted of the Rorschach, which apparently contained no indications of organic pathology, and only the verbal part of the Wechsler-Bellevue Scale, on which at the age of 13 years, 11 months, the boy obtained a Verbal I.Q. of 114. It was not until Jay received a full battery of psychological tests, including the performance scale of the Wechsler-Bellevue and the extent of the motor deficit was seen to be so glaring, that the organic brain damage became unmistakably clear.

Diagnostic Evaluation at the Menninger Foundation

The neurological examination revealed mild, diffuse paresis, or weakness of muscle strength, in spinal and extremity musculature which at first was thought by the neurologist to be a static defect present from very early life, possibly residual from a peripheral neuritis or poliomyelitis. However, when the EEG report was found to be abnormal and indicative of brain damage, the neurologist concluded that a negative neurological examination plus an abnormal EEG would indicate old head injury, but not active brain damage. A year later the boy was re-examined neurologically and psychologically with essentially the same findings. The neurologist now noted, "This doesn't exclude cerebral damage, but means that evidence for intracranial disease must come from EEG, pneumoencephalogram, and psychological and psychiatric examinations."

Our psychological test study confirmed the schizoid features described in the previous psychological test report. However, it also called attention to the unmistakable evidence of brain damage manifested almost entirely in profound impairment in the visual-motor sphere; severe disability in perceptual-motor integration; badly impaired spatial organization; incoordination; loss of perceptual gestalt with difficulty
in relation of perceptual holes; inability to reconstruct configurations with poor response to graduated cues (Goldstein-Scheerer Cube Test and Bender Visual-Motor Gestalt Test).

Jay appeared to have achieved a relatively effective compulsive adaptation typically characteristic of people with long-standing organic conditions. The brain damage present seemed so preeminently significant in the developmental history of the child that it would have given a skewed picture of him to put primary diagnostic stress on the "schizophrenic-like" findings. While there were undoubtedly indications of withdrawal and perceptual misrecognitions, one didn't see clear-cut evidence of primary thought disorder or actual schizophrenic disorganization. It seemed diagnostically sound to also emphasize the organic pathology at the time.

Jay had obtained a Wechsler-Bellevue verbal I.Q. of 112, in startling contrast with a performance I.Q. of only 53. It is most rare to see such generalized lowering of all motor coordination in a psychological test record with such good verbal functioning, a disparity that I had seen only among brain injured soldiers in the neurosurgical wards of an army hospital.

Table I. Wechsler-Bellevue Test Results

<table>
<thead>
<tr>
<th></th>
<th>Age 15</th>
<th>Age 16</th>
<th>Age 19 yrs. 8 mos.</th>
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<tbody>
<tr>
<td>Verbal</td>
<td>112</td>
<td>125</td>
<td>131</td>
</tr>
<tr>
<td>Performance</td>
<td>53</td>
<td>59</td>
<td>68</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>93</td>
<td>102</td>
</tr>
</tbody>
</table>

At the case conference, it was noted that, although no one had previously picked up this apparently major problem which put the boy at
such great disadvantage in peer competition and age group activities, he had nevertheless done a remarkable job of capitalizing on his remaining intellectual potential, going to the extreme, however, of over-intellectualizing and withdrawal into fantasy. Jay was admitted to Southard School, two weeks later began psychotherapy, and nine months thereafter transferred to a boarding home and attended Topeka High School.

Follow-up of Diagnostic Studies

A year after the initial study, repeat diagnostic examinations were made. (Test results are summarized in Tables I and II.) In the meantime, Jay had been making a good adjustment in the residential treatment setting and later in the boarding home and public high school. He now obtained a Wechsler-Bellevue verbal I.Q. of 125; but his performance I.Q. remained approximately the same, 59.

Table II. Wechsler-Bellevue Subtest Distribution

<table>
<thead>
<tr>
<th></th>
<th>Age 15</th>
<th>Age 16</th>
<th>Age 19 yrs. 8 mos.</th>
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</thead>
<tbody>
<tr>
<td><strong>Verbal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehension</td>
<td>9</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Information</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Digit Span</td>
<td>10</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>10</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Similarities</td>
<td>12</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>10</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td><strong>Performance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picture Arrangement</td>
<td>8</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Picture Completion</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Block Design</td>
<td>3</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Object Assembly</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Digit Symbol</td>
<td>5</td>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>

He continued to do well in treatment, and 4½ years after our initial appraisal, repeat test studies yielded a Wechsler-Bellevue Verbal I.Q. of 131, versus a performance I.Q. of 68. Performance tests where improvement might be expected, if only from practice effect, showed no
significant bitterness. Jay was now doing well in college, pursuing courses in the arts and social sciences, but having difficulty in the exact sciences. He continued to show some schizoid traits in that he was odd-appearing, often unshaven, unkempt, and with dirty hands, still an isolate from his social group.

Our initial diagnosis had been "Schizophrenic-like process in a child with possible organic brain damage and mild diffuse paresis." The final diagnosis was "Chronic Brain Syndrome of unknown cause, with neurotic reaction." Jay's condition at discharge seven years after his arrival, was recorded as "moderately improved."

FOLLOW-UP NOTE

Jay graduated from college, pursued graduate studies abroad, earned a masters degree in political science, took further course work but gave up on the doctorate. In prophetic fulfillment of his childhood sobriquet, "Little Professor," he is now indeed a professor at a small western college. He had a short-lived incompatible marriage, which was dissolved. He now lives a solitary life, well regarded by faculty and students to whom he is highly devoted.

RETROSPECT

In retrospect, there appears to have been a primary developmental defect in the motor sphere, possibly exacerbated by a subclinical viral complication at the time his older sister contracted polio, when his own musculature became quite flaccid and he manifested increased learning difficulties. The organic psychological test findings gave a broader diagnostic perspective on the presenting problem, resulting in redirection of the treatment program. This case is a prototype on the
continuum of learning disabilities, where the synthesizing function of the motor apparatus is severely impaired while conceptualizing capacity is relatively spared.

REFERENCES


