NEUROPSYCHOLOGICAL
ASSOCIATES OF CHICAGO
645 N. Michigan Avenue
Suite 803
Chicago, IL 60611
T 312.202.0755 F 312.202.0750

NEUROPSYCHOLOGICAL EVALUATION

Name: **Goodwin, Paul**
Case: **State of Missouri v. Paul T. Goodwin**
Case #: **98 CR 1227**
DOB: **11/12/1966**
Education: **12 years**
Handedness: **Right**
Medications: **Insulin, Glipizide, Lisinopril, Metoprolol, Zocor, Calcium Carbonate**
DOE: **11/24/2014**
Report Date: **12/4/2014**
Examiner: Robert Hanlon, Ph.D., ABPP
Board Certified Clinical Neuropsychologist
Associate Professor of Psychiatry and Neurology
Northwestern University Feinberg School of Medicine

Reason for Referral

Paul Goodwin is a 48 year old, right handed male who was convicted of first degree murder in 1998 in relation to the death of Joan Crotts. Mr. Goodwin was referred for a neuropsychological evaluation by Jennifer Herndon (attorney), in order to provide an objective assessment of his current cognitive, intellectual, and behavioral status, as well as an assessment of his competency to be executed.

Impression

On objective neuropsychological assessment, Paul Goodwin reveals multiple cognitive and intellectual deficits that represent a neuropsychological impairment of moderate severity and a significant functional disability. His cognitive and intellectual deficits are associated with several Neurodevelopmental Disorders, including Intellectual Developmental Disorder (formerly known as mental retardation), Learning Disorders, and a Communication Disorder, specifically a Language Disorder, involving impaired auditory comprehension of speech.

Mr. Goodwin also manifests a Neurocognitive Disorder, involving memory impairment, attentional dysfunction, and executive dysfunction, that is likely due to cerebrovascular disease secondary to the chronic effects of hypertension, hypercholesterolemia, and insulin-dependent diabetes. His neurocognitive profile is consistent with the effects of ischemic changes in the subcortical white matter of his brain, which are common sequelae of chronic hypertension, hypercholesterolemia and insulin-dependent diabetes.

His current neuropsychological profile is characterized as follows:

- General Intelligence is in the Borderline-Intellectually Disabled range (Full Scale I.Q. = 73; 4th %tile)
- Verbal Intelligence is in the Borderline-Intellectually Disabled range (VCI = 72; 3rd %tile)
- Language comprehension impairment

- Attentional dysfunction
- Memory impairment, involving defective encoding and retrieval of verbal information.
- Executive dysfunction, involving defective problem solving abilities, combined with cognitive rigidity and poor response inhibition, compounded by his attentional dysfunction and language comprehension impairment.
- Impairment of multiple adaptive functions, according to the findings of Denis Keyes, Ph.D. (see report of 12/3/2014).

DSM-V Diagnoses

317 Intellectual Disability (Intellectual Developmental Disorder) (Mild)
315.39 Language Disorder (impaired auditory comprehension)
315.00 Specific Learning Disorders (by history)
331.83 Mild Neurocognitive Disorder (likely due to cerebrovascular disease)

Opinions

The following opinions are rendered with a reasonable degree of neuropsychological and scientific certainty.

It is my opinion that, despite his intellectual developmental disorder, language disorder, learning disorder, and neurocognitive disorder, Paul Goodwin has the mental capacity to understand the nature and purpose of the punishment about to be imposed upon him.

It is also my opinion that, due to his intellectual developmental disorder, language disorder, learning disorder, and neurocognitive disorder, Paul Goodwin lacks capacity to understand matters in extenuation, arguments for executive clemency or reasons why the sentence should not be carried out.

Records Reviewed

Records from Denis W. Keys, Ph.D.
Records from the St. Louis Psychiatric Rehabilitation Center
Records from Washington University School of Medicine
Records from Potosi Correctional Center
Records from Rosalyn Schultz, Ph.D.

Brief History
(The following information was obtained from available records)

On 1/4/1999, the report of a forensic psychiatric evaluation by John Rabun, M.D., St. Louis Psychiatric Rehabilitation Center, documented the following: "In 1975, using the Wechsler Intelligence Scale for Children-Revised, he had a Verbal IQ of '82,' a Performance IQ of '87,' and a Full Scale IQ of '84;' In 1976, using the Wechsler Intelligence Scale for Children-Revised, he had a Verbal IQ of '72', a Performance IQ of '85', and a Full Scale IQ of '76;' In 1978, using the Wechsler Intelligence Scale for Children-Revised, he had a Verbal IQ of '77', a Performance IQ of '80, and a Full Scale IQ of '76;' In 1980, using the Wechsler Intelligence Scale for Children-Revised, he had a Verbal IQ of '69', a Performance IQ of '80', and a Full Scale IQ of '72;' In 1983, using the Wechsler Intelligence Scale for Children-Revised, he had a Verbal IQ of '69', a Performance IQ of '91', and a Full Scale IQ of '78.'" Diagnoses included the following: Bereavement (prior history), Learning Disorder NOS, Cocaine Abuse (prior history), Borderline Intellectual Functioning, Hearing Impairment; Status Post Stab Wound to the Chest; Status Post

Phlebitis related to IV Drug Use. Dr. Rabun concluded that "Paul Goodwin has the capacity to understand the nature and purpose of the proceedings against him and to assist in his own defense."

In April, 1999, the report of a forensic psychological evaluation by Rosalyn Schultz, Ph.D., Licensed Psychologist, documented the following: "Assessment of Mr. Goodwin's general intellectual functioning on the Wechsler Adult Intelligence Scale III indicates he is functioning within the borderline range of general intellectual capacity. Mr. Goodwin obtained a Verbal IQ of 73, a Performance Q of 92, and a Resultant Full Scale I.Q. of 80…….The significant discrepancy between his Performance level and his Verbal level is most likely due to his language and comprehension deficits as a result of his significant hearing loss and history of learning disabilities." Diagnoses included the following: Major Depression; Alcohol Dependence, in a controlled environment; Cocaine Abuse (prior history); Posttraumatic Stress Disorder (in partial remission); Personality Disorder NOS; Borderline Intellectual Functioning; Hearing Impairment; Learning Disorders. Dr. Schultz concluded that "Mr. Goodwin has the capacity to understand the nature and the purpose of the proceedings against him and to assist in his own defense."

On 8/16/1999, the report of a neuropsychological evaluation by Richard Wetzel, Ph.D., documented the following diagnoses: Cocaine abuse by history; Alcohol abuse by history; Learning Disorder NOS by history; Mixed Receptive-Expressive Language Disorder; Verbal memory deficits; Deficits in problem solving abilities.

On 2/15/2000, the report of a psychological evaluation by Gary Selbert, Ed.D., Potosi Correctional Center, documented the following: On the Wechsler Adult Intelligence Scale-III he achieved a Verbal I.Q. of 81, a Performance I.Q. of 90, and a Full Scale I.Q. of 84. Diagnoses included the following: Major Depressive Disorder; Polysubstance Abuse Disorder in remission in a controlled environment, r/o Posttraumatic Stress Disorder; Personality Disorder NOS.

On 12/3/2001, a psychoeducational report by Denis Keyes, Ph.D., documented the following: Summary diagnosis of Mental Retardation. Composite I.Q. obtained from the Stanford Binet Intelligence Scale-Fourth Edition was 67 (<1.0%tile). Composite I.Q. obtained from the Kaufman Adolescent and Adult Intelligence Test was 74. Additional impairments in adaptive behavior were documented in the following domains: Communication, Daily Living Skills, Socialization.

On 12/3/14, a Report on Findings of Mental Retardation by Denis Keyes, Ph.D. documented that adaptive functions, including Health & Safety, Managing Money, Home & Transportation, and Social Adjustment, as assessed with the Independent Living Scales, were uniformly defective and impaired. Similarly, adaptive functions, involving Academic Skills including Reading Comprehension and Math Computation, as assessed with the Wide Range Achievement Test-4, were defective and impaired.

(The following information was provided by Paul Goodwin)

Demographics: Paul Goodwin is a 48 year old, right-handed single male without children.

Charge/Conviction: Mr. Goodwin reported that he was convicted of first degree murder in relation to the death of Joan Crotts on March 1, 1998. He stated that he was 29 years of age at the time of the crime. He stated that he lived in a boarding house next door to Ms. Crotts' home. Mr. Goodwin stated that "I did not know her."

Medical History: Mr. Goodwin reported that his medical history is remarkable for the following: (1) Diabetes mellitus (insulin-dependent) for the past 9-10 years with loss of sensation in his lower extremities, bilaterally, for the past 7 years, suggestive of peripheral neuropathy; (2) Hepatitis C diagnosed approximately 10 years ago; (3) Hypertension; (4) Hypercholesterolemia; (5) Stabbed in the neck/chest in a fight at age 18, requiring emergent hospitalization and surgery; (6) mild closed head trauma with brief loss of consciousness sustained in a bicycle accident at age 6;

(7) mild closed head trauma sustained when he hit a shotgun shell with a hammer until it discharged at age 10; (8) mild closed head trauma with brief loss of consciousness sustained in a gang fight at age 15; (9) closed head trauma with loss of consciousness sustained when his head struck a pillar in a garage while riding in the back of a pickup truck at age 17; (10) congenital hearing impairment, bilaterally; (11) learning disorder; (12) 3 surgical procedures required due to complications of IV drug abuse. He denied a history of seizures, migraine, or other neurological disorders, except as described above. He reported that he has smoked 0.5 to 1 ppd since age 16. Family medical history is remarkable for stroke, alcohol dependence, and hearing impairment.

Psychiatric History: He reported a lifelong history of learning disorder combined with a developmentally-based auditory comprehension deficit. He denied a history of psychiatric treatment or psychiatric hospitalization. He reported that he sustained recurrent physical and emotional abuse from his father from childhood through the age of 20.

Substance Abuse History: He reported that he began drinking alcohol at age 15. He reported that he drank alcohol, daily, from age 25-29. From age 25-29, he reported that he drank alcohol until he lost consciousness 2x/month. He reported that he began using cocaine at age 25, while living with his girlfriend, Penny. He reported that he began snorting cocaine, then started smoking crack cocaine, and eventually used cocaine intravenously 1x/week for 2 years. He denied the use of any other illicit substances.

Educational History: Mr. Goodwin reported that he completed 12 years of education. He reported that he experienced learning difficulties and was diagnosed with a learning disorder in elementary school. He reported that he was placed in a full-time special education program in the first or second grade and remained in a full-time special education curriculum through the 6th grade. He reported that he also attended a school for the hearing impaired. He reported that he was expelled from Normandy Junior High school, but eventually received a high school diploma from "South County Tech" in the Special School District.

Vocational History: Prior to his arrest, he reported that he was employed by Rhodes Furniture for 2 years. He stated that he worked in shipping and handling. Previously, he reported that he was financially dependent on his girlfriend with whom he lived for 3-4 years (i.e., age 24-27). Prior to his dependence on his girlfriend, he reported that he was employed by County Concrete as a laborer for 2 years.

Behavioral Observations

He was alert, responsive, and oriented to person, place, and time. He ambulated independently. Sitting posture was symmetric. Dominant right-handed graphomotor functions were adequate for paper-pencil tasks. Spontaneous speech was fluent and intelligible. Speech rate, tone, and volume were within normal limits. However, he revealed mild difficulty articulating his thoughts, combined with limited sentence structure and discourse impairment.

Affect was responsive and he revealed full affective range. Mood was neutral. Thought processes were logical, linear, and goal-directed. He denied the current or historic manifestation of auditory hallucinations or visual hallucinations. He denied the current or historic manifestation of delusions. Frustration tolerance was preserved based on his engagement and perseverance on a series of cognitively-demanding tasks. Self-regulation of behavior, including initiation, persistence, and termination of responses, were within normal limits.

Complaints

"Hearing loss"

"I lost it after my girlfriend died in 1997. I spiraled out of control. I was severely depressed."

Memory difficulty
Decreased concentration
Language comprehension deficit
Word finding difficulty
Reading difficulty
Spelling difficulty
Difficulty performing arithmetic calculations
Difficulty making decisions
Dizziness
Ambulatory difficulties due to sensory loss in his lower extremities, bilaterally
Imbalance
Decreased appetite
Anxiety
Depression (severity = "8/10")

Tests Administered

Wechsler Adult Intelligence Scale-IV (WAIS-IV)
Wechsler Memory Scale-IV (WMS-IV)
California Verbal Learning Test-2 (CVLT-2)
Test of Memory Malingering (TOMM)
Word Memory Test (WMT)
Validity Indicator Profile (VIP)
Continuous Performance Test-2 (CPT-2)
Trail Making Test (TMT)
Verbal Fluency (FAS)
Complex Ideational Material subtest of the Boston Diagnostic Aphasia Examination
Naming Test (subtest of the Neuropsychological Assessment Battery)
Stroop Color-Word Test
Wisconsin Card Sorting Test (WCST)

Effort and Compliance

The WMT was administered to provide an objective measure of test-taking effort. His response style resulted in a valid profile (IR = 95, DR = 97.5, CNS = 92.5), reflecting sufficient test-taking effort, with no evidence of cognitive symptom exaggeration or malingering.

The TOMM was administered to objectively assess test-taking effort. His response style resulted in a valid profile (Trial 1 = 100%, Trial 2 = 100%, Retention Trial = 100%), reflecting optimal test-taking effort, with no evidence of cognitive symptom exaggeration or malingering.

The VIP (Verbal Subtest) was also administered to objectively assess test-taking effort. His response style resulted in a valid/compliant profile, reflecting sufficient test-taking effort, with no evidence of cognitive symptom exaggeration or malingering.

Additionally, he achieved a Reliable Digit Span score of 9, reflecting optimal test-taking effort. Finally, he achieved 100% accuracy on the forced-choice recognition subtest of the CVLT-2, reflecting sufficient test-taking effort.

In summary, Paul Goodwin consistently demonstrated sufficient test-taking effort on 8 of 8 objective measures of test-taking effort from 5 separate symptom validity tests. As a result, the following findings are considered to be a valid and accurate representation of his current cognitive and intellectual status.

Intellectual Functions

General intellectual functioning was in Borderline-Intellectually Disabled range, as assessed with the WAIS-IV. He achieved a Full Scale I.Q. of 73 (4th %tile). Verbal intelligence was also in the Borderline-Intellectually Disabled range, as established by the Verbal Comprehension Index (VCI = 72; 3rd %tile). Visual-nonverbal intelligence was in the Low Average range, as established by the Perceptual Reasoning Index (PRI = 82; 12th %tile). The 10-point difference between PRI and VCI was statistically significant, reflecting his comparatively undeveloped and generally defective verbal intellectual functions.

Working memory functions in the auditory modality, requiring reorganization and/or calculation of sequential information held briefly in immediate memory, were in the Low Average range, as established by the Working Memory Index (WMI = 80; 9th %tile). Rate of visual information processing and visuomotor speed were in the Borderline range, as established by the Processing Speed Index (PSI = 76; 5th %tile).

Verbal: Verbal intellectual functions were uniformly defective. Definitive verbal formulation and vocabulary were in the mild-moderately defective range. Verbal concept formation and abstraction were in the moderately defective range. Fund of verbal information and semantic knowledge were in the mildly defective range.

Visual-Nonverbal: Visual-nonverbal intellectual functions were variable, with evidence of isolated visuospatial functions within the average range. Reasoning within the visuospatial modality, involving concepts of symmetry, closure, and perceptual analogy, was in the mildly defective range. Visual analysis and synthesis of fragmented forms were in the mildly defective range. However, visuospatial analysis and construction of novel geometric patterns were in the average range.

Full Scale I.Q., Index Scores, and Age-Corrected Subtest Scaled Scores were as follows:

Full Scale I.Q.	**73 (4th %tile)**	**Borderline-Intellectually Disabled range**
Verbal Comprehension Index	**72 (3rd %tile)**	**Borderline-Intellectually Disabled range**
Perceptual Reasoning Index	**82 (12th %tile)**	**Low Average range**
Working Memory Index	**80 (9th %tile)**	**Low Average range**
Processing Speed Index	**76 (5th %tile)**	**Borderline range**

Verbal Comprehension Subtests	
Similarities	4
Vocabulary	5
Information	6

Perceptual Reasoning Subtests	
Block Design	9
Matrix Reasoning	6
Visual Puzzles	6

Working Memory Subtests	
Digit Span	8
Arithmetic	5

Processing Speed Subtests	
Symbol Search	6
Coding	5

Attention

Auditory: Basic attentional functions, as assessed with series generation measures, were within normal limits. Auditory span of apprehension was in the in average range (SS = 10). Basic working memory functions in the auditory modality, as assessed with backward digit span (SS = 7) and numerical sequencing (SS = 8), were within normal limits. However, advanced working

memory functions, as assessed with a measure requiring arithmetic calculations of single and multiple step conceptual problems, were defective (SS = 5).

Visual: On the CPT-2, a vigilance test, requiring sustained and selective attention in the visual modality, he scored in the defective range (inverted T-scores = 65-98). His performance reflected defective attentional maintenance and phasic inattentiveness, compounded by delayed visuomotor reaction time. Basic integrated attentional functions, requiring rapid and sustained visuomotor responses, were within normal limits. On Trail Making A, a measure of visuomotor tracking and psychomotor speed, he scored in the average range (T = 47). However, advanced integrated attentional functions were defective. On the Symbol Search subtest of the WAIS-IV, a measure requiring rapid visual discrimination and feature detection, he scored in the mildly defective range (SS = 6). Similarly, on the Coding subtest of the WAIS-IV, requiring rapid alternating attention and graphomotor speed, he scored in the mild-moderately defective range (SS = 5).

Memory and Learning

Auditory-Verbal: Verbal encoding of narrative information was in the mild-moderately defective range (SS = 5). Recall of the same narrative information following a 30-minute delay was also in the mild-moderately defective range (SS = 5). Recognition of the same narrative information, as assessed in a dual-choice recognition paradigm, was defective, but roughly consistent with his level of encoding.

Verbal encoding of noncontextual information, as assessed in a list-learning paradigm with the CVLT-2 (T = 28), was in the moderately defective range. Immediate word span was in the severely defective range (z = -2.5). His learning slope was in the low average range (z = -1.0) and retention was unstable across learning trials (z = -1.5). He revealed no evidence of significant vulnerability to proactive or retroactive interference. Recall following a 20-minute delay was in the defective range (z = -1.5). Recognition of target words was within normal limits (z = -0.5), but contaminated by an extreme volume of false positive errors (raw score = 13; z = +3.0). As a result, his total recognition discriminability was in the moderately defective range (z = -2.0).

Visual-Nonverbal: Encoding of visuographic designs following a single exposure was in the low average range (SS = 7). Specifically, encoding of the visual content of the designs was in the mildly defective range (SS = 6) and encoding of the spatial locations of the designs was in the average range (SS = 12). Recollection of the same visuographic designs following a 30-minute delay was in the average range (SS = 9). Specifically, recognition and discrimination of the visual content of the designs were in the average range (SS = 8) and recall of the spatial locations of the designs was in the average range (SS = 10).

Language

Spontaneous speech was fluent and intelligible. Speech rate, tone, and volume were within normal limits. Phonemic fluency, requiring rapid retrieval of words based on phonemic properties, was in the low average range (T = 42). Naming to visual confrontation was also in the low average range, as assessed with the NAB Naming Test (T = 43). Auditory comprehension of concrete factual information, test instructions, basic syntactic structures, and single-sentence utterances was within normal limits. However, auditory comprehension was defective for short passages (i.e., 3-4 sentences), requiring basic inferences (T = 27).

Visuoperceptual and Constructional Abilities

Basic visuoperceptual functions, including object recognition and gross visual discrimination of form and spatial relations, were intact. As previously described, visuospatial

analysis and constructional abilities were in the average range, as assessed with the Block Design subtest of the WAIS-IV (SS = 9). However, rapid visual analysis and visuospatial integration were in the mildly defective range, as assessed with the Visual Puzzles subtest of the WAIS-IV (SS = 6).

Reasoning and Executive Functions

Executive functions, including cognitive flexibility, response inhibition, problem solving, and behavioral self-regulation, were generally defective. On the WCST, a measure of perceptual concept formation, requiring hypothesis testing, selective response inhibition, and cognitive flexibility, he scored in the defective range. He achieved 4 categories in 128 trials, with 35 perseverative responses (T = 33), 32 perseverative errors (T = 32), 44 total errors (T = 37), and 1 set maintenance error. He required 56 trials to achieve the first category (5th %tile). His performance reflected a defective capacity for formulating alternative solutions to novel problems and shifting cognitive set in response to changing task demands.

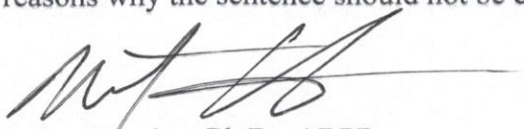
On Trail Making B, a measure of divided attention and conceptual alternation, he scored in the moderately defective range (T = 27). His performance reflected a defective capacity for the simultaneous processing of two cognitive operations. On the interference trial of the Stroop Color-Word Test, a measure requiring sustained inhibition of an overlearned and conditioned response, he scored in the mildly defective range (T = 35).

Verbal reasoning, involving verbal concept formation and abstraction, was in the moderately defective range, as assessed with the Similarities subtest of the WAIS-IV (SS = 4). Perceptual reasoning, involving spatial concept formation, was in the mildly defective range, as assessed with the Matrix Reasoning subtest of the WAIS-IV (SS = 6).

Assessment of Competency to be Executed

Mr. Goodwin stated that he was sentenced to death following his conviction of the murder of Joan Crotts. He defined his death sentence as follows: "I will be killed." He reported that he is scheduled to be executed on December 10, 2014 at Bonne Terre Correctional Center. He stated that the method of his execution is as follows: "They strap you to a table and hook IVs up to you. The drugs make you go to sleep." When asked to describe the outcome of his scheduled execution, he responded as follows: "Death; I will not be alive."

Despite his intellectual developmental disorder, language disorder, learning disorder, and neurocognitive impairment, Paul Goodwin has the mental capacity to understand the nature and purpose of the punishment about to be imposed upon him. Conversely, due to his intellectual developmental disorder, language disorder, learning disorder, and neurocognitive impairment, Paul Goodwin lacks capacity to understand matters in extenuation, arguments for executive clemency or reasons why the sentence should not be carried out.



Robert Hanlon, Ph.D., ABPP
Licensed Clinical Psychologist
Board Certified Clinical Neuropsychologist