

언어기능에 대한 신경심리학적 평가

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Neuropsychological Assessment for Verbal Function

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ABSTRACT

In this article neuroanatomical theory and verbal developmental process were introduced, followed that disorders and assesment of language function were reviewed. Finally, the causes and assesment of developmental dyslexia as a childhood disorder related to verbal function were reviewed.

KEY WORDS : Language · Neuropsychology.

(thought) . 가 .

가 .

가 .

가 .

(sign system) .

(referents) (Kolb 1. 언어의 국재화(localization)

1990). (word) Penfield (1959)

(phonemes) (neocortical speech zones)

(morphemes)가 , morphemes 가

가 . Syntax

가 , semantics

insula가 , (Broca's area)

(Wernicke's area)

insula

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가 (1995).
 가 (perseveration), 가
 가 (motor track) 가 가 가 가
 가 (angula gyrus), angula gyrus (Fig. 1).

2. 언어의 피질하 요소(Subcortical component in language)

가 (localization) posterior speech zone 가 (Kolb 1990).
 Hughlings - Jackson(1949) 가

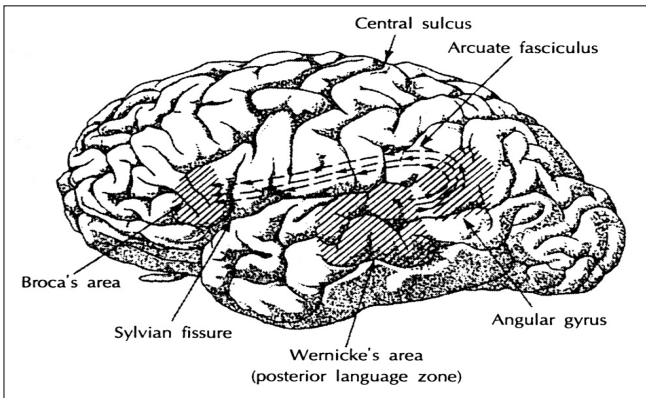


Fig. 1. Lateral view of the left hemisphere.

1959 Penfield Roberts가 (pulvinar)가
 Ojemann, Cooper (1979) (pulvinar) lateral - posterior, lateral - central complex가

(perseveration), 가
 postoperative dysphasia (motor track) 가 가 가 가

언어기능의 발달

가
 가
 Bates (1987) 1600 (milestones)
 (babbling) 6 10
 8 10 (production) 8
 14
 24
 가
 가
 가
 가
 18 24
 , 2 3
 5
 (Table 1).

Table 1. Early acquisition of language and communication

	Reception	Expression
Birth to 6 months	<ul style="list-style-type: none"> Reacts to sudden noise Is quieted by a voice Locates sound Recognizes name and words like "bye-bye" 	<ul style="list-style-type: none"> Cries Babbles, laughs Initiates vocal play Vocalizes to self
6 to 12 months	<ul style="list-style-type: none"> Stops activity to <i>no</i> Raises arms to <i>come up</i> Obeys simple instructions Understands simple statements 	<ul style="list-style-type: none"> Makes sounds of the culture's language Combines vowel sounds Imitates adult sounds Says first words
12 to 18 months	<ul style="list-style-type: none"> Carries out two consecutive commands Understands new words Listens to nursery rhymes 	<ul style="list-style-type: none"> Uses ten words Requests by naming objects Connect sounds so that they flow like a sentence
18 to 24 months	<ul style="list-style-type: none"> Recognizes many sounds Understands action words like <i>show me</i> 	<ul style="list-style-type: none"> Uses short sentences Uses pronouns
24 to 36 months	<ul style="list-style-type: none"> Follows commands using <i>in, on, under</i> Follows three verbal commands given in one utterance 	<ul style="list-style-type: none"> Uses possessive, noun-verb combinations Mother understands 90% of communications
36 to 48 months	<ul style="list-style-type: none"> Increases understanding of others' messages and social context of communication 	<ul style="list-style-type: none"> Uses increasingly complex language forms, such as conjunctions and auxiliary verbs

Based on Bryant, 1977 ; Whitehurst, 1982

(pragmatic development)

가 가 ,

언어 장애

(aphasia)

Table 2. Summary of symptoms of disorders of language

Disorders of comprehension :

- Poor auditory comprehension
- Poor visual comprehension

Disorders of production :

- Poor articulation
- Word-finding deficit (anomia)
- Unintended words or phrases (paraphasia)
- Inability to repeat aurally presented material
- Low verbal fluency
- Inability to write (agraphia)
- Loss of tone in voice (aprosodia)

2. 브로카 실어증(Broca's Aphasia)

가

1. 베르니케 실어증(Wernicke's Aphasia)

3. 전도성 실어증(Conduction Aphasia)

(arcuate fasciculus)

4. 전반적 실어증(Global Aphasia)

Rolando

가
가

5. 명칭 실어증(Anomic Aphasia)

(angular gyrus)

Goodglass Kaplan(1972)

10가

(production)

(Table 2).

언어장애의 평가

가

가

가 가

가

Boston Diagnostic Aphasia Exa-

mination(BDAE), Boston Naming Test(BNT), The Token Test, Peabody Picture Vocabulary Test, Category Fluency Test, Letter Fluency Test

가

가

가

가

Neuropsych-

ological Assessment(Lezak 1995)

가(

1995)

언어기능과 관련된 아동기 장애 : 난독증

(Communication Disorder), (Au-
tistic Disorder), (,)
가

가

()

1. 난독증(Dyslexia)의 정의 및 유병률

Kussmaul(1877) 'word blindness',

가

, 1892 De-

jerine posterior portions 'word blind-
ness' (dyslexia)'

Berlin(1887)

, World Federa-
tion of Neurology(1968)

가

10 16%(Gaddes 1976)

가

3 6% (Hynd Cohen 1983 ; Stano-
vich 1986). 10%(Lovett 1992), 1%

(Tranapol Tranapol 1981),
1% (Kuo 1978).

가

3 4

(1985) 3.8%

(Mo-

rison 1983). 2 - 5 : 1(Critchley

1970), 1.8 - 2 : 1(Pennington 1989) 가

2. 하위 유형

가 가 75%

가 25%

(French Rapin

1975). Rourke(1982) Wide Range Achievement Test

가

. Boder(1973)

dyseidetic

type dysphonetic type 9%가
 dysphonetic type 63%가
 dress, planet moon).
 Doehring (1981)
 가
 (1983) (accuracy)
 , Barker (1984)
 . P - type

dyseidetic type 31%
 (DeFries 1987),
 가 34% (Rutter

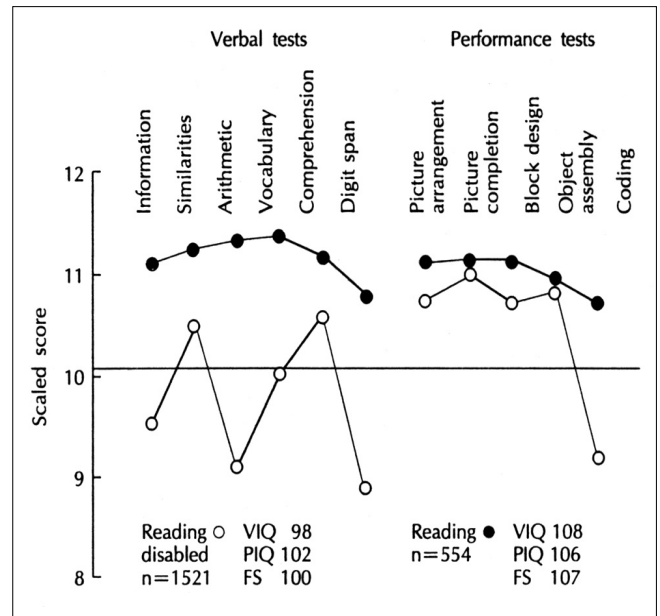


Fig. 2. WISC profiles of dyslexic & control subjects.

가 , L - type
 3. 원인론
 가 (abnormal cerebral lateralization)
 . Orton(1937)
 가 , Witelson
 (1990) (spatial processing)
 가
 가 Brain CT, EEG
 (Kolb & Whishan 1990)
 schwind Galaburda(1985), Galaburda(1989)
 planum temporale region(
) . Planum temporale

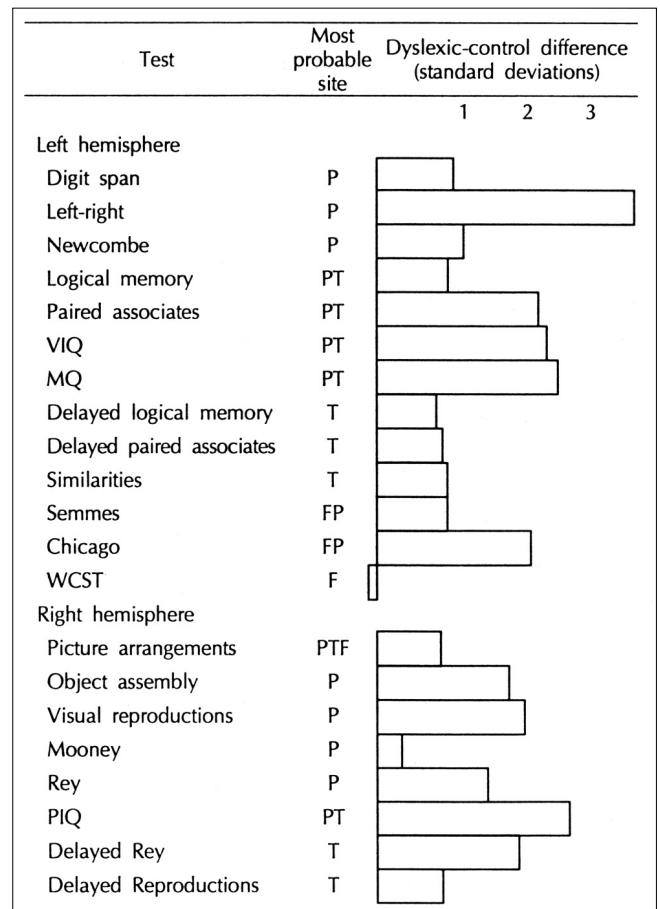


Fig. 3. Summary of relative performances on composit test battery.

1978), 15가
(Smith 1983).

4. 평 가

Wechsler
ACID
(A : Arithmetic),
(C : Coding), (I : Information), (D : Digit Span)
(Sattler 1982).
Rugel(1974) 1521 554
WISC ACID
(Fig. 2),
(1985 ;
1996).
Wechsler Luria - Nebraska
(1994), (1989),
Wechsler Memory Scale(1945), Frostig -
(1982), - (Belmont Birch 1965),
Woodcock - Johnson Word Attack Test(1989)
가
(paired association learning), IQ,
Wechsler IQ
(Whishaw Kolb
1984)(Fig. 3).

맺 는 말

가

가가

가

가

가

가

가

가

가

가

중심 단어 :

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