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(think   aloud

protocol)　　　　　　　．

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(right hemisphere damage)

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.   (discourse level)

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(sarcasm)

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    (ending)   [3]
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            ,   ,   (plausability)
                                    [3]
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                                                    [4]

            [6,7]
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                                                                    (attention
deficit),   (associating information)   ,   (inference
deficit)

                                                    .

    Myers[8]   '   '   .
            (suggestion),   (statement),   (judgment)
              ,   . Myers[8]

                                                        .

    .   (backward inference)   (focal
sentence)
                                    .   (forward elaborations)
                                        .   (associative

- 4 -

inference)

[9]
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Trabasso   Magliano[10]   .

(explanation)   ,   ,

.   (prediction)

,   (association)

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,   (lexical decision task)

(recognition priming)   .

,

(recalling),

(question answering),

(think aloud protocol)   .[9]

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Tompkins   [11]   (on-line lexical

decision task)   .

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.   (probe word)

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(suppression mechanism)   .

   Tompkins   [12)]

                                        .   .

                                                            (probe word)

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                                                    ,

(contextual information)   .

                              . Leonard   [13)]

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                                                        (question answering)

            . Brownell   [5)]

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- 6 -

Brownell [5]

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(retelling) .

Gardner [14]

. Moya [15]

. Joanette [16]

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Trabasso [10]

(think aloud protocol)

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(cancellation task)

(neglect) . 6

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73 62.08 (=6.55). 12 9

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. Aphasia Screening Test[18](AST),

, Mini-Mental State Examination[19](MMSE)

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RH 1	63	Rt BG, ext capsule ICH
RH 2	60	Rt MCA infarction
RH 3	67	Rt MCA infarction
RH 4	47	Rt MCA infarction
RH 5	61	Rt MCA infarction
RH 6	66	Rt MCA infarction
RH 7	49	Rt BG infarction
RH 8	57	Rt MCA infarction
RH 9	71	Rt MCA infarction
RH 10	60	Rt MCA infarction
RH 11	73	Rt MCA infarction
RH 12	60	Rt BG ICH
N 1	51	
N 2	60	
N 3	61	
N 4	63	
N 5	65	
N 6	71	
N 7	67	
N 8	73	
N 9	61	
N 10	52	
N 11	59	
N 12	62	

RH , N .

[1] ‘ ’

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AST, MMSE

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Mini Disc Sony MZ-R91

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Mini Disc Sony MZ-R91   .

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                                     .1)[20]

               Trabasso [10]

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(explanation),   (prediction),   (association)

          (paraphrase)   (others)

   .   (memory

operations)   (activation),   (maintenance),

   (retrieval)   .

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		(focal sentence) ， ， ， ， ， ， ， ， ， ， ， . 'A B ， . ex. ' ， ' ， ' ' ， .
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(RHD)   (N)

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	[1]	t		p-value
RHD	162.75± 54.45			
		- 1.71	22	0.102
N	209.83± 78.53			

[1]   ±   .

RHD :Right hemisphere damage

N: Normal

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	1	*t*		*p* - value
RHD	76.16± 54.82	- 2.75	22	0.011
N	138.41± 56.06			

1 ± .

RHD :Right hemisphere damage

N: Normal

7.

	1	t		*p* - value
RHD	40.93± 23.48	- 3.32	22	0.003
N	65.66± 10.65			

1 ± .

RHD :Right hemisphere damage

N: Normal

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	[1]	t		p-value
RHD	19.26± 13.26	-1.26	22	0.220
N	24.84± 7.71			
RHD	2.86± 2.86	-1.78	22	0.089
N	4.57± 1.69			
RHD	22.16± 12.98	-2.83	22	0.009
N	36.24± 11.31			

[1]   ±   .

RHD :Right hemisphere damage

N: Normal

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(memory operation)

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		[1]	t		p - value
	RHD	65.01± 17.12	- 0.74	22	0.468
	N	69.92± 15.46			
	RHD	26.16± 14.12	2.54	22	0.018
	N	14.37± 7.7			
	RHD	9.02± 7.40	- 0.88	22	0.388
	N	13.60± 16.45			

[1]   ±   .

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		[1]	t		p-value
	RHD N	53.94± 22.84 71.36± 9.30	-2.45	22	0.022
	RHD N	35.37± 24.12 18.92± 10.64	2.16	22	0.041
	RHD N	10.67± 7.89 9.7± 5.8	0.34	22	0.735
	RHD N	56.61± 41.40 92.11± 8.61	-2.91	22	0.008
	RHD N	11.76± 20.40 4.09± 7.58	1.22	22	0.235
	RHD N	6.61± 10.65 3.78± 7.10	0.77	22	0.451
	RHD N	73.56± 25.47 79.22± 10.14	-0.71	22	0.482
	RHD N	18.11± 16.75 11.40± 6.89	1.28	22	0.212
	RHD N	8.6± 11.08 9.4± 5.47	-0.21	22	0.837

[1]　　　　　　　　±　　　　　　　　　　　.

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Trabasso   [10]

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Trabasso   [21]   /

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. Trabasso   [10,21]

47   73   . Trabasso   [10,21]

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Zwaan　Brown[22]　　　　　　　　，

(skilled reader)　　　　　　　　　　　　　　(less

skilled reader)　　　　　　　　　　　．

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frame)　　　　　．

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[24,25]
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^{10)}

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(coherence)   . Whitney [26]

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(low-span readers)   (high-span readers)

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Abstract

Inference during story comprehension in patients with right hemisphere damage

Mee Kyoung Suh

Graduate Program in Speech Pathology, Yonsei University

(Directed by Chang-Il Park)

Adults with right hemisphere damage (hereafter RHD) show subtle communication disorder during discourse comprehension. Inference deficit could be considered as one of the main causes for this comprehension disorder. This study investigates the inference of RHD adults during story comprehension. Think aloud protocol was used to examine the inference patterns (explanation, prediction, association) and the memory operations (activation, maintenace, retrieval). Twelve RHD subjects and normal subjects were examined in this study. The results are as follows.

1. RHD subjects used less clauses than the normal subjects. However, there was no statistical significance in this difference.

2. RHD subjects made less inference than the normal subjects. This difference showed statistical significance. This difference, however, could have been affected by the smaller number of clauses produced by the RHD patiences. Therefore, the inference-clause ratio was compared between the

two subject groups. As a result, RHD subjects showed lower inference-clause ratio than the normal subjects and this had statistical significance.

3. The inference patterns were compared between the two groups. Both groups showed similar inference patterns, using association most and prediction least. In the amount of associations, however, there was statistical significance between the two groups. RHD subjects used less associations than the normal subjects.

4. Memory operations used for inference were compared between the two groups. Both groups showed similar patterns in the uses of the memory operations, using activation most, maintenance next, retrieval least. RHD subjects, however, used more maintenance than the normal subjects and this showed statistical significance.

5. The uses of memory operations(activation, maintenance, retrieval) were compared between the two groups in each of the inference categories (association, explanation, prediction). The result shows that activation was used most, maintenance next, and retrieval least in each association, explanation and prediction. There were statistical significance in the difference of the two groups in activation and maintenace in the explanation category as well as activation in the prediction category.

This study shows that RHD patients, compared to non-brain damaged adults, use less association for inference which draw information from general world knowledge. RHD subjects also used more maintenace operations. This could mean that in understanding a story they rely more on local coherence by using information located nearby the focal sentence

in the text rather than constructing a contextual frame through associating information drawn from world knowledge or the information located further in the text.

The significance of this study lies in having a chance to examine the actual inferences of the RHD patients. Furthermore, it seems to provide an insight to the understanding of the difficulties of RHD patients' discourse comprehension. RHD patients do make inference during their discourse comprehension, but they are just not making enough of it. This fact that they are not making enough inference seems to explain their difficulties in discourse comprehension.