

## 4 Year In-Home Study

### Child Test Record Sheets. Annotated for dataset and raw data coding.

Original documents created July 2007, this version updated April 2024.

Entries in red denote variable names and coding values used in the analysis dataset.  
Entries in blue denote variable names and coding used in the cleaned raw data.

This document was created in August 2007 and last updated in April 2024.

#### Notes:

1. Variable names in the raw data differ from those used in the dataset, for all items.
2. Dataset variables are shown in red. They all have prefix "ec" and suffix "1/2" (see below).
3. Raw data variable names are shown in blue.
4. For many items, the value codes or score values that are used in the dataset are identical to those used in the cleaned raw data. In such cases, the values are shown only once, in red.
5. Where the coding differs between the raw data and the dataset, both sets of values are shown, in blue for raw data and in red for the dataset.
6. The McCarthy test scores have a range of possible values, and the range of values is shown in brackets, e.g. "(0-10)". In such cases, score values are integers: 0, 1, 2, etc.
7. The score sheet did not provide documentation of the scoring procedures for tests, and the interpretation of different scores is generally not possible within this document. Testers used published test manuals for their scoring.
8. For most items in the raw data, a 'missing' response is coded as -99 and 'not applicable' is coded as -77, but in the analysis dataset these are recoded to missing values. This missing-value coding is not shown in this document.
9. The data items shown in this document are generally coded numeric scores, not the actual raw responses of the twins. Testers generally did not provide a methodical record of raw responses, and these could not be entered. The test scores have been carried through from the raw data into the dataset.
10. In most tests, only the final test score (often in a grey shaded box) was entered; sub-test scores were usually not entered and were not always recorded.
11. All item variables are twin-specific and therefore have been double entered in the conventional way in the TEDS dataset. Hence, all dataset variables have names ending in either "1" (for the twin) or "2" (for the cotwin). Raw data variables are not structured or named in this way.
12. This document only shows item variables (test scores), not variables derived from the scores.
13. The cleaned raw data and dataset contain numeric variables only, as shown. Any text notes made by testers on the score sheet were not entered and are not present in the raw data.
14. The layout and formatting of the pages of the booklet have been slightly modified to incorporate the variable names and codes.

Tester's Name: tester (coded as a pseudonymous ID number in the raw data; not in the dataset)

Child's First Name: (used to confirm identity at the time of data entry, not retained in the raw data)

Child ID: TwinID. The ID is changed to a de-identified form in the dataset.

Date of Birth: (used to confirm identity at the time of data entry, not retained in the raw data)

Date of Test: inhmdate (date value)  
(date not retained in dataset, but used to derive twin age variable etestage)

Comments: (not recorded in raw data)

A.T.T.  att: numeric result (decibels) of hearing test, if carried out for the twin; missing in most cases.

ecattal/2: category codes

0=not tested,

1=normal hearing or mild hearing loss (< 40dB),

2=moderate hearing loss (>= 40dB)

## McCARTHY SCALES

The recorded total scores for all McCarthy tests have integer values starting at 0. For each test, the range of allowed scores is shown in brackets, e.g. (0-10).

**Test 1. BLOCK BUILDING:** Discontinue after failure on both trials of 2 consecutive items.

	Score		Best Score
	Trial 1	Trial 2	
1. tower	(0-3)	(0-3)	(0-3)
2. chair	(0-2)	(0-2)	(0-2)
3. building	(0-2)	(0-2)	(0-2)
4. house	(0-3)	(0-3)	(0-3)
<b>Total</b>			<b>mc01blo</b> <b>ecmcblo1/2</b> <b>(0-10)</b> (Max = 10)

**Test 2. PUZZLE SOLVING:** Discontinue after 3 consecutive failures.

	Time limit	Performance time	Circle obtained score*
1. cat	30"		0 1
2. cow	30"		0 1
3. carrot	30"		0 1 2
4. pear	60"		0 1 2 3 4 5 <sup>1"-20"</sup>
5. bear	90"		0 1 2 3 4 5 6 7 8 9 <sup>31"-45" 1"-30"</sup>
6. bird	120"		0 1 2 3 4 5 6 7 8 9 <sup>31"-60" 1"-30"</sup>

\* For items 4-6, bonus points for quick performance are given only if the child completes the puzzle perfectly.

<b>Total</b>	<b>mc02puz</b> <b>ecmcpuz1/2</b> <b>(0-27)</b> (Max = 27)
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**Test 3. PICTORIAL MEMORY**

Exposure time	Response time	Response			Score
Allow 10"	Allow 90"	button <input type="checkbox"/>	fork <input type="checkbox"/>	paper clip <input type="checkbox"/>	<b>mc03pic</b> <b>ecmcpic1/2</b> <b>(0-6)</b> (0-6)
		horse <input type="checkbox"/>	padlock <input type="checkbox"/>	pencil <input type="checkbox"/>	

**Test 4. WORD KNOWLEDGE:**

Part I. Picture Vocabulary		Score
1. apple <input type="checkbox"/> tree <input type="checkbox"/> house <input type="checkbox"/> woman <input type="checkbox"/> cow <input type="checkbox"/>		(0-5)
2. clock	Response:	(0-1)
3. sailboat	Response:	(0-1)
4. flower	Response:	(0-1)
5. purse	Response:	(0-1)
<b>Total (Part I)</b>		<b>mc04wrld1</b> <b>ecmcpv1/2</b> <b>(0-9)</b> (Max = 9)

Discontinue if score on Part I is less than 6.

Part II. Oral Vocabulary - Discontinue after 4 consecutive failures.		Score (0-2)
1. towel	Response:	
2. coat	Response:	
3. tool	Response:	
4. thread	Response:	
5. factory	Response:	
6. shrink	Response:	
7. expert	Response:	
8. month	Response:	
9. concert	Response:	
10. loyal	Response:	
Total (Part II)		<b>mc04wrđ2</b> <b>ecmcwov1/2</b> <b>(0-20)</b> (Max = 20)

\*\*\*Test 5. NUMBER QUESTIONS: Discontinue after 4 consecutive failures

	Right answer	Response	Score (0-1)
1. How many ears do you have?	two		
2. How many noses do you have?	one		
3. How many heads do you have?	one		
4. If you have 2 toys and I give you 1 more, how many toys will you have?	three		
5. Suppose you had 4 balloons. If half of them broke, how many would be left?	two		
6. If I have 3 sweets in each hand, how many pieces do I have altogether?	six		
7. If you have 9 pennies and lose 2 of them, how many will you have left?	seven		
8. If I went to the store and bought a dozen apples, how many apples would that be?	twelve		
9. A box of crayons costs 29 pence and a colouring book costs 23 pence. How much more do the crayons cost than the colouring book?	six		
10. If you buy a toy ball for 20 pence, how much change should you get from a pound coin?	eighty		
11. I am thinking of a secret number. If you 2 times, the number is 8, what is the number?	four		
12. Four children shared 12 biscuits. If each child got the same number of biscuits, how many biscuits did each child get?	three		
Total			<b>mc05num</b> <b>ecmcnum1/2</b> <b>(0-12)</b> (Max = 12)

**Test 6. TAPPING SEQUENCE**

	Tapping order	Score			Best score
		trial 1	trial 2	trial 3	
1.	1 - 2 - 3 - 4	(0-2)	(0-2)	(0-2)	(0-2)
Continue only if 1 is correct. Discontinue after 2 consecutive failures on items 2-8					Score
2.	1 - 3 - 4				(0-1)
3.	2 - 4 - 1				(0-1)
4.	4 - 1 - 2 - 3				(0-1)
5.	2 - 3 - 1 - 4				(0-1)
6.	1 - 4 - 3 - 2 - 3				(0-1)
7.	4 - 2 - 3 - 1 - 2				(0-1)
8.	1 - 2 - 4 - 3 - 2 - 1				(0-1)
Total					mc06tap ecmctap1/2 (0-9) (Max = 9)

**\*\*\*Test 7. VERBAL MEMORY:**

Part I. Words and Sentences: Discontinue Part I after three consecutive failures.	Score
1. toy - chair - light	(0-3)
2. doll - dark - coat	(0-3)
3. after - colour - funny - today	(0-4)
4. around - because - under - never	(0-4)
Do NOT stress the <u>underlined</u> words in items 5 and 6	
5. The <u>boy</u> said <u>good-bye</u> to his <u>dog</u> every <u>morning</u> <u>before</u> he <u>went</u> to <u>school</u>	(0-7)
6. The <u>girl</u> <u>tied</u> a <u>pretty</u> <u>pink</u> <u>ribbon</u> on her doll <u>before</u> she <u>went</u> <u>out</u>	(0-9)
Total (Part I)	
mc07vrb1 ecmcvws1/2 (0-30) (Max = 30)	

**Part II. Story:** Give part II only if child earned 8 or more (out of 30) on Part I

Now I am going to read you a little story. Listen carefully, and we will see how well you can tell it back to me. You don't have to tell it back to me word-for-word. Just tell me the story as well as you can.

**One day after school Bob was walking to the shop. On the way he saw a woman carrying some letters to a postbox. Suddenly, the wind blew the woman's letters into the street. Bob shouted, "I'll get them for you!" He looked both ways and saw that there were no cars coming. He ran into the street and picked up all of the letters. The woman was very happy to get her letters back. She thanked Bob for being such a kind and helpful boy.**

	Response	Score (0-1)
1. Term used for Bob		
2. Term used for the woman		
3. Term used for the letters		
4. Bob walking to shop		
5. Bob saw woman		
6. Wind blew letters		
7. Bob shouted, "I'll get them for you!"		
8. Bob was careful		
9. Bob picked up letters		
10. Woman was happy		
11. Woman thanked Bob		
Total (Part II)		mc07vrb2 ecmcvst1/2 (0-11) (Max = 11)

**TEST 8 UNSUITABLE FOR THIS AGE**

**Test 9. LEG CO-ORDINATION:** Discontinue after item 5 if both trials of items 1-5 are failed.

	Score		Best score	Notes
	trial 1	trial 2		
1. Walking backwards	(0-2)	(0-2)	(0-2)	
2. Walking on tiptoe	(0-2)	(0-2)	(0-2)	
3. Walking in a straight line	(0-2)	(0-2)	(0-2)	
4. Standing on one foot	(0-2)	(0-2)	(0-2)	
5. Standing on other foot	(0-2)	(0-2)	(0-2)	
6. Skipping	(0-3)	(0-3)	(0-3)	
Total			mc09leg ecmcle1/2 (0-13) (Max = 13)	

**Test 10. ARM CO-ORDINATION:  
Part I. Ball bouncing**

<b>Number of bounces</b>	15	12-14	9-11	6-8	3-5	2	1	0
<b>Score</b>	7	6	5	4	3	2	1	0

Trial 1		Trial 2		Best Score	Preferred Hand
Bounces	Score	Bounces	Score		
(0-15)	(0-7)	(0-15)	(0-7)	mc10arm1 ecmcab1/2 (0-7) (0-7)	R L B

**Part II. Beanbag catch - Give even if Part I failed. Discontinue Part II if all 3 trials of item 1 are failed**

	Trial	Score	
1. Both hands	1	(0-1)	
	2	(0-1)	
	3	(0-1)	
2. Preferred hand	1	(0-1)	Preferred hand R L
	2	(0-1)	
	3	(0-1)	
3. Other hand	1	(0-1)	
	2	(0-1)	
	3	(0-1)	
Total (Part II)		mc10arm2 ecmcab1/2 (0-9) (Max = 9)	










**Test 10 Part III. Beanbag target game - Give Part III even if Part II is failed**

	Trial	Score	
1. Preferred hand	1	(0-2)	Preferred hand R L
	2	(0-2)	
	3	(0-2)	
3. Other hand	1	(0-2)	
	2	(0-2)	
	3	(0-2)	
Total (Part III)		mc10arm3 ecmcabt1/2 (0-12) (Max = 12)	

**Test 11. IMITATIVE ACTION**

		Score (0-1)
1. Cross feet		
2. Fold hands		
3. Twiddle thumbs		
4. Sight through tube		Eye used: R L
Total		mcl1imi ecmcimil/2 (0-4) (Max = 4)

**\*\*\*Test 12. DRAW-A-DESIGN: Discontinue after 3 consecutive failures**

	Pass-Fail	Score	Preferred hand
1. 		(0-1)	R L B
2. 		(0-1)	R L B
3. 		(0-1)	R L B
4. 		(0-2)	R L B
5. 		(0-2)	R L B
6. 		(0-3)	R L B
7. 		(0-3)	R L B
8. 		(0-3)	R L B
9. 		(0-3)	R L B
Total		mc12des ecmcdes1/2 (0-19) (Max = 19)	



\*\*\*Test 13. DRAW-A-CHILD: Administer only if child earned 1 or more points on Test 12

	Score (0-2)	Preferred hand R L B	Child's comments
1. head			
2. hair			
3. eyes			
4. nose			
5. mouth			
6. neck			
7. trunk			
8. arms and hands			
9. attachment of arms			
10. legs and feet			
Total	<b>mc13chi</b> <b>ecmcchi1/2</b> <b>(0-20)</b> (Max = 20)		

**LATERALITY SUMMARY**

Hand dominance				
Test 10, Part I	Ball bouncing	R	L	B
Test 10, Part II, item 2	Beanbag catch	R	L	
Test 10, Part III, item 1	Beanbag throw	R	L	
Tests 12 & 13, all items	Drawing	R	L	B
Totals		R <b>mchandr</b> (0-4)	L <b>mchndl</b> (0-4)	B <b>mchandb</b> (0-2)

In the dataset, these 3 raw items are converted into a derived handedness category variable: **ecmchandl1/2**, coded as follows:  
 1=entirely left, 2=mainly left, 3=equal/both, 4=mainly right, 5=entirely right.

\*\*\*Test 14. NUMERICAL MEMORY: Discontinue Part I after failure on *both* trials of any item. If child earns 3 or more points on Part I, give Part II and discontinue after failure on any item.

Part I. Forward series				Part II. Backward series			
	trial 1	trial 2	Score (0-2)		trial 1	trial 2	Score (0-2)
1.	5 - 8	4 - 9		1.	9 - 6	4 - 1	
2.	6 - 9 - 2	5 - 8 - 3		2.	1 - 8 - 3	2 - 5 - 8	
3.	3 - 8 - 1 - 4	6 - 1 - 8 - 5		3.	5 - 2 - 4 - 9	6 - 1 - 8 - 3	
4.	4 - 1 - 6 - 9 - 2	9 - 4 - 1 - 8 - 3		4.	1 - 6 - 3 - 8 - 5	6 - 9 - 5 - 2 - 8	
5.	5 - 2 - 9 - 6 - 1 - 4	8 - 5 - 2 - 9 - 4 - 6		5.	4 - 9 - 6 - 2 - 1 - 5	3 - 8 - 1 - 6 - 2 - 9	
6.	8 - 6 - 3 - 5 - 2 - 9 - 1	5 - 3 - 8 - 2 - 1 - 9 - 6					
Total (Part I)			<b>mc14nm1</b> <b>ecmcnmf1/2</b> (0-12) (Max = 12)	Total (Part II)			<b>mc14nm2</b> <b>ecmcnmb1/2</b> (0-10) (Max = 10)

**\*\*\*Test 15. VERBAL FLUENCY**

	Time limit	Verbatim response	Score (0-9)
1. <b>Things to eat</b> Examples: bread, potatoes	20"		
2. <b>Animals</b> Examples: cat, bear	20"		
3. <b>Things to wear</b> Example: shoes	20"		
4. <b>Things to ride</b> Example: bus	20"		
Total			<b>mc15vf</b> <b>ecm cvf11/2</b> <b>(0-36)</b> (Max =36)

**Test 16. COUNTING AND SORTING:** if child passed nine or more items on Test 5, give full credit on test 16. Otherwise, administer Test 15 and discontinue after four consecutive failures

	Score (0-1)
1. takes 2 blocks	
2. takes 3 more blocks	
3. answer: 5	
4. puts 2 blocks on each card	
5. answer:2	
6. puts 5 blocks on each card	
7. answer: 5	
8. point: 2nd block from left	
9. point: 4th block from right	
Total	
<b>mc16cs</b> <b>ecmccso1/2</b> <b>(0-9)</b> (Max =9)	

**\*\*\*Test 17. OPPOSITE ANALOGIES**

				Score (0-1)
1. The sun is <i>hot</i> , and ice is _____.				
2. I throw the ball <i>up</i> , and then it comes _____.				
Continue only if child answers at least one of items 1 and 2 correctly, and discontinue after 3 consecutive failures on items 3-9				
3. An elephant is <i>big</i> , and a mouse is _____.				
4. Running is <i>fast</i> , and walking is _____.				
5. Cotton is <i>soft</i> , and rocks are _____.				
6. A lemon is <i>sour</i> , and sugar is _____.				
7. Feathers are <i>light</i> , and stones are _____.				
8. Syrup is <i>thick</i> , and water is _____.				
9. Sandpaper is <i>rough</i> , and glass is _____.				
Total				<b>mc17opp</b> <b>ecmcopp1/2</b> <b>(0-9)</b> (Max =9)

**Test 18. CONCEPTUAL GROUPING:** discontinue after 4 consecutive failures

				Score
1. Little, big				(0-1)
2. Red, yellow, blue				(0-1)
3. Square, round				(0-1)
	Number right	Number wrong	Right minus wrong	
4. Square blocks	(0-6)	(0-6)	(0-6)	(0-2)
5. Big yellow blocks	(0-2)	(0-10)	(0-2)	(0-2)
6. Big round red block				(0-1)
7. Small blue square (put on all large blocks minus large blue square)				(0-1)
8. Large blue square				(0-1)
9. Large yellow circle and small yellow square				(0-2)
Total				<b>mc18cg</b> <b>ecmccgr1/2</b> <b>(0-12)</b> (Max =12)

**Hand dominance (not recorded in raw data)**

Check one: (see pages 148-149 of manual)

- |   |  |
|---|--|
| <input type="checkbox"/> dominance established (right-handed) | <input type="checkbox"/> dominance established (left-handed) |
| <input type="checkbox"/> dominance not established            | <input type="checkbox"/> not scorable                        |

**Eye used in sighting (Test 11, item 4)**

Check one: (see page 149 of manual)

- |                                |                               |                                       |
|--------------------------------|-------------------------------|---------------------------------------|
| <input type="checkbox"/> right | <input type="checkbox"/> left | <input type="checkbox"/> not scorable |
|--------------------------------|-------------------------------|---------------------------------------|

# PHONOLOGICAL AWARENESS

## Cards

Circle the card chosen as response (whether right or wrong). Code 1 for correct and 0 for incorrect. If child selects wrong item say “**No!**” with puppet shaking head, and have a puppet indicate which card is the right one, saying, for example, “**Lynn likes the bin because bin sounds like Lynn**”.

## Box position

L=left at 45’, A= straight ahead, R=right at 45’.  
The box should be at forearm’s reach for the child.

## Hand(s) used

coding used for items phon01h to phon12h in the “hands used” column below:

Use the following in the table below:

“Hands used” = 1=left

“Hands used” = 2=picked up card with left hand, and transferred to right hand to post

“Hands used” = 3=used both hands to pick up and post

“Hands used” = 4=picked up card with right hand, and transferred to left hand to post

“Hands used” = 5=right

In the dataset, the 12 raw handedness items are replaced with a mean, having decimal values 1 to 5:

ecphhand1/2

For this mean, ambiguous raw item values 2 and 4 were first removed.

Scores ecph011/2 to ecph121/2 (phon01 to phon12) in the “correct” column are all coded:

1=correct, 0=incorrect

Box position	Puppet	Cards			
A	LYNN	chair	bin		
A	LYNN	tin	bowl		
A	TOAT	hat	boat		
A	TOAT	goat	duck		
R	DAN	spoon	ring	pan	key
R	DAN	fan	peg	kite	bike
L	WUG	chair	bed	door	rug
L	WUG	plate	mug	knife	cake
L	ZAP	can	plate	cap	frog
L	ZAP	map	saw	mat	door
R	PAT	hand	hat	shoe	fish
R	PAT	sock	cap	tie	cat

Hand(s) used (1/2/3/4/5)	Correct (1/0)
phon01h	phon01 ecph011/2
phon02h	phon02 ecph021/2
phon03h	phon03 ecph031/2
phon04h	phon04 ecph041/2
phon05h	phon05 ecph051/2
phon06h	phon06 ecph061/2
phon07h	phon07 ecph071/2
phon08h	phon08 ecph081/2
phon09h	phon09 ecph091/2
phon10h	phon10 ecph101/2
phon11h	phon11 ecph111/2
phon12h	phon12 ecph121/2

## BRITISH ABILITY SCALES

Verbal Comprehension: "What is this? Yes, it's a teddy bear. Have a good look at him"

1 pt. each - all items on this page are coded as: 1=correct, 0=incorrect

1) Show me teddy's legs	bas01	ecbas011/2	
2) Show me teddy's mouth	bas02	ecbas021/2	
3) Show me teddy's eyes	bas03	ecbas031/2	
4) Show me teddy's arms	bas04	ecbas041/2	
5) Show me teddy's ears	bas05	ecbas051/2	
6) Show me teddy's ribbon	bas06	ecbas061/2	
<hr/>			
7) Give me the car ( <i>horse not next to soldier - return to row</i> )	bas07	ecbas071/2	
8) Give me the pencil	bas08	ecbas081/2	
9) Give me the watch	bas09	ecbas091/2	
10) Give me the horse	bas10	ecbas101/2	
11) Put the horse in the box	bas11	ecbas111/2	
12) Put the button on the car	bas12	ecbas121/2	
13) Put the soldier under the horse	bas13	ecbas131/2	
14) Which one shows the time? ( <i>remove horse</i> )	bas14	ecbas141/2	
15) Which one do we drive?	bas15	ecbas151/2	
16) Which one barks?	bas16	ecbas161/2	

(i) name items; ii) replace items after each question)

17) Show me the car; stand it up; now put the car in front of me	bas17	ecbas171/2	
18) Put a tree behind your back	bas18	ecbas181/2	
19) Make a boy stand on the bridge	bas19	ecbas191/2	
20) Make the van move to me	bas20	ecbas201/2	
21) Put the car under the bridge	bas21	ecbas211/2	
22) Make the two boys face each other	bas22	ecbas221/2	
23) Give me the car and the van at the same time	bas23	ecbas231/2	
24) Give me the bridge and then give me the little tree	bas24	ecbas241/2	
25) Before you give me the van, give me the little house	bas25	ecbas251/2	
26) Put a house on each side of the car	bas26	ecbas261/2	
27) Put a boy between the little tree and the big house	bas27	ecbas271/2	

# GOLDMAN FRISTOE TEST OF ARTICULATION

## SOUNDS-IN-WORDS RESPONSE MATRIX

		BLUE	YELLOW	GREEN			
		initial	medial	final	all items on this page coded as follows:		
1	p	gf01ini ecgf01i1/2	gf01med ecgf01m1/2	gf01fin ecgf01f1/2		no error 1=correct	
2	m	gf02ini ecgf02i1/2	gf02med ecgf02m1/2	gf02fin ecgf02f1/2			
3	n	gf03ini ecgf03i1/2	gf03med ecgf03m1/2	gf03fin ecgf03f1/2		error in production 0=incorrect	
4	w	gf04ini ecgf04i1/2					
5	h	gf05ini ecgf05i1/2				syllable not elicited 2=not elicited (2 is treated as a missing value in the SPSS dataset)	
6	b	gf06ini ecgf06i1/2	gf06med ecgf06m1/2	gf06fin ecgf06f1/2			
7	g	gf07ini ecgf07i1/2	gf07med ecgf07m1/2	gf07fin ecgf07f1/2			
8	k	gf08ini ecgf08i1/2	gf08med ecgf08m1/2	gf08fin ecgf08f1/2			
9	f	gf09ini ecgf09i1/2	gf09med ecgf09m1/2	gf09fin ecgf09f1/2			
10	d	gf10ini ecgf10i1/2	gf10med ecgf10m1/2	gf10fin ecgf10f1/2			
11	ŋ	gf11ini ecgf11i1/2	gf11med ecgf11m1/2	gf11fin ecgf11f1/2			BLENDS
12	j	gf12ini ecgf12i1/2			24	bl	gfb24bl ecgf24b1/2
13	t	gf13ini ecgf13i1/2	gf13med ecgf13m1/2	gf13fin ecgf13f1/2	25	br	gfb25br ecgf25b1/2
14	□	gf14ini ecgf14i1/2	gf14med ecgf14m1/2	gf14fin ecgf14f1/2	26	dr	gfb26dr ecgf26b1/2
15	t□	gf15ini ecgf15i1/2	gf15med ecgf15m1/2	gf15fin ecgf15f1/2	27	fl	gfb27fl ecgf27b1/2
16	l	gf16ini ecgf16i1/2	gf16med ecgf16m1/2	gf16fin ecgf16f1/2	28	kl	gfb28kl ecgf28b1/2
17	r	gf17ini ecgf17i1/2	gf17med ecgf17m1/2	gf17fin ecgf17f1/2	29	kr	gfb29kr ecgf29b1/2
18	→	gf18ini ecgf18i1/2	gf18med ecgf18m1/2	gf18fin ecgf18f1/2	30	pl	gfb30pl ecgf30b1/2
19	θ	gf19ini ecgf19i1/2	gf19med ecgf19m1/2	gf19fin ecgf19f1/2	31	sk	gfb31sk ecgf31b1/2
20	v	gf20ini ecgf20i1/2	gf20med ecgf20m1/2	gf20fin ecgf20f1/2	32	sl	gfb32sl ecgf32b1/2
21	s	gf21ini ecgf21i1/2	gf21med ecgf21m1/2	gf21fin ecgf21f1/2	33	st	gfb33st ecgf33b1/2
22	z	gf22ini ecgf22i1/2	gf22med ecgf22m1/2	gf22fin ecgf22f1/2	34	tr	gfb34tr ecgf34b1/2
23	ð	gf23ini ecgf23i1/2	gf23med ecgf23m1/2		35	hw	gfb35hw ecgf35b1/2

## NONWORD REPETITION

Introduce the measure to the child as follows (or similar):

**“Now we’re going to play a word game. I’m going to say some funny words and I want you to say them after me.”**

If the child is not responsive it can be helpful to say:

**“If you play this game with me, you’ll be able to hear yourself on the tape recorder afterwards.”**

### Administration

This test should be tape recorded. If there is any doubt about the child’s pronunciation of the word, it is best to write the word down as it is pronounced by them, this can be double checked against the tape when coding.

Cover mouth when saying the words.

2 SYLLABLE		3 SYLLABLE					
S	C	S	C				
				VONK (practice)			
		~		DOPELATE	non01	ecnon011/2	
			~	GLISTERING	non02	ecnon021/2	
~				PENNEL	non03	ecnon031/2	
	~			HAMPENT	non04	ecnon041/2	
	~			GLISTOW	non05	ecnon051/2	
			~	FRESCOVENT	non06	ecnon061/2	
		~		BANNIFER	non07	ecnon071/2	
~				BALLOP	non08	ecnon081/2	
			~	TRUMPETINE	non09	ecnon091/2	
	~			SLADDING	non10	ecnon101/2	
	~			TAFFLEST	non11	ecnon111/2	
		~		BARRAZON	non12	ecnon121/2	
		~		COMMERINE	non13	ecnon131/2	
		~		THICKERY	non14	ecnon141/2	
~				RUBID	non15	ecnon151/2	
			~	BRASTERER	non16	ecnon161/2	
~				DILLER	non17	ecnon171/2	
~				BANNOU	non18	ecnon181/2	
	~			PRINDLE	non19	ecnon191/2	
			~	SKITICULT	non20	ecnon201/2	

all items on this page coded as follows:  
1=correct, 0=incorrect

## **BUS STORY**

**I'm going to tell you a story about this bus [point], then, when I'm finished, I want *you* to tell *me* the story about this bus.**

- 1) Once upon a time there was a very naughty bus.  
While his driver was trying to mend him, the bus decided to run away.
- 2) He ran along the road beside a train.  
They made funny faces at each other and raced each other.  
But the bus had to go on the alone, because the rain went into a tunnel. He hurried into the city where he met a policeman who blew his whistle and shouted "stop, bus".
- 3) But the naughty bus paid no attention and ran on into the country.  
He said, "I'm tired of going on the road". So he jumped over a fence.  
He met a cow who said, "Moo, I can't believe my eyes".
- 4) The bus raced down the hill. As soon as he saw there was water at the bottom, he tried to stop. But he didn't know how to put on his brakes. So he fell in the pond with a splash and stuck in the mud. When the driver found where the bus was, he telephoned for a crane to pull him out and put him back on the road.

[switch on tape recorder]

**Now *you* tell *me* the story. Once upon a time there was a..."**

[turn pages as child tells story]

**And then...**

**So...**



Score sheet page for Bus Story (instructions above).

To help the table fit in within a page here, the column widths have been narrowed.

The only data values systematically recorded by testers are the total scores, as shown at the bottom of the table.

Each of the four scores is numeric, with values recorded from 0 upwards. There is no clearly defined upper limit for any of these scores.

As indicated below, the score values are decimals for the "information total" and "A5LS" but are integers for the other two totals.

- Information total: **businf**, **ecbusin1/2**. Integer or half-integer (decimal) values between 0 and roughly 50.
- Sentence length total: **bussl**, **ecbussl1/2**. Integer values between 0 and roughly 80.
- Number of subordinate clauses total: **bussub**, **ecbussc1/2**. Integer values between 0 and roughly 6.
- Average length of the 5 longest sentences: **busa5ls**, **ecbussc1/2**. Decimal values, recorded to one decimal place, between 0 and roughly 15.

Information Scoring Guide	Information Score	Transcription	Sentence Length	Subordinate Clauses
<b>Bold type</b> = 2 points (1 point if half response is correct)				
Normal type = 1 point				
bus       naughty				
driver     mending/fixing				
bus <b>ran away/drove off</b>				
<b>met/ran with train</b>				
made faces				
raced				
<b>train</b> <b>in tunnel</b>				
bus <b>alone</b>				
<b>into city/street</b>				
<b>met/saw policeman</b>				
policeman   blew whistle				
<b>said Stop</b>				
bus       paid no attention				
<b>ran on/didn't stop</b>				
<b>into country</b>				
<b>tired of/bored with road</b>				
<b>jumped over fence/gate</b>				
<b>met/saw cow</b>				
cow       moo				
not believe eyes				
bus <b>went downhill</b>				
<b>saw water</b>				
<b>tried to stop</b>				
<b>didn't know how</b>				
<b>brake/stop</b>				
<b>fell in water</b>				
splash				
stuck				
in mud				
driver <b>found bus/him</b>	Information		TOTALS	<b>bussl</b>
<b>rang for crane</b>	Total			<b>ecbussl1/2</b>
crane <b>lifted out/pulled up</b>	<b>businf</b>		A5LS	<b>busa5ls</b>
bus       back on road	<b>ecbusin1/2</b>			<b>ecbusa51/2</b>

## ACTION PICTURES

Activity instructions and scoring procedures were not recorded in the score sheet. The number of rows in the table has been reduced for this document. Both recorded scores have values of 0 or higher, with no clearly defined upper limit.

- Total information score: **actinf**, **ecactin1/2**. Integer or half-integer (decimal) values between 0 and roughly 40.
- Total grammar score: **actgram**, **ecactgr1/2**. Integer values between 0 and roughly 30.

Picture Number	Responses	Information Score	Grammar Score
.....			
.....			
.....			
.....			
.....			
.....			
.....			

Total	<b>actinf</b> <b>ecactin1/2</b>	<b>actgram</b> <b>ecactgr1/2</b>
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Age Equivalence		
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## **BAYLEY BEHAVIOUR RATINGS**

Responses to all items in this section are coded with values 1-5, as shown.

### **A Positive affect**    bayla ecbaya1/2

- 1 No positive affect displayed
- 2 One or two brief displays of positive affect
- 3 Three or more brief displays of positive affect
- 4 One or two intense, heightened or prolonged displays of positive affect
- 5 Three or more intense, heightened or prolonged displays of positive affect

### **B Negative affect**    baylb ecbayb1/2

- 1 Three or more intense, heightened or prolonged displays of negative affect
- 2 One or two intense, heightened or prolonged displays of negative affect
- 3 Three or more brief displays of negative affect
- 4 One or two brief displays of negative affect
- 5 No negative affect displayed

### **C Soothability when upset**    baylc ecbayc1/2

- 1 Cannot be soothed
- 2 Soothed only by being physically comforted (e.g., held, patted)
- 3 Soothed by being given a desired toy or object
- 4 Soothed by being spoken to
- 5 Does not need external assistance to be soothed

### **D Hypersensitivity to test materials and stimuli**    bayld ecbayd1/2

- 1 Constantly hypersensitive; hypersensitivity disrupts testing
- 2 Typically hypersensitive; returns to test activity in one or two instances
- 3 Occasionally hypersensitive
- 4 Typically reacts appropriately; hypersensitive in a few instances
- 5 Constantly reacts appropriately

### **E Energy**    bayle ecbaye1/2

- 1 Consistently lacks animation or energy; tired and lacklustre
- 2 Typically tired and lacklustre; one or two periods of animation or energy
- 3 Animated and energetic half the time; tired and lacklustre half the time
- 4 Typically animated or energetic; one or two periods of being tired
- 5 Consistently animated or energetic

### **F Adaptation to change in test materials**    baylf ecbayf1/2

- 1 Consistently resists relinquishing materials and/or refuses to accept new materials
- 2 Typically resists relinquishing materials and/or refuses to accept new materials; 1 or 2 easy transitions
- 3 Makes poor transitions half the time; makes good transitions half the time
- 4 Typically relinquishes materials and accepts new materials; 1 or 2 poor transitions
- 5 Consistently relinquishes materials and accepts new materials

**G Interest in test materials and stimuli** baylg ecbayg1/2

- 1 No interest
- 2 One or two displays of interest
- 3 Moderate interest
- 4 Much interest
- 5 Constant interest

**H Initiative with tasks** baylh ecbayh1/2

- 1 Consistently shows no initiative
- 2 Typically shows no initiative; 1 or 2 instances of initiative
- 3 Shows initiative half the time
- 4 Typically shows initiative; 1 or 2 instances of no initiative
- 5 Consistently shows initiative

**I Exploration of objects and/or surroundings** bayli ecbayil/2

- 1 No exploration
- 2 1 or 2 instances of exploration
- 3 Moderate exploration
- 4 Much exploration
- 5 Constant exploration

**J Attention to tasks** baylj ecbayj1/2

- 1 Constantly off task; does not attend
- 2 Typically off task; attends in 1 or 2 instances
- 3 Off task half the time
- 4 Typically attends; attention wanders in 1 or 2 instances
- 5 Constantly attends

**K Persistence in attempting to complete tasks** baylk ecbayk1/2

- 1 Consistently lacks persistence
- 2 Typically not persistent; one or two instances of persistence
- 3 Lacks persistence half the time
- 4 Typically persistent; lacks persistence in 1 or 2 instances
- 5 Consistently persistent

**L Enthusiasm towards tasks** bayll ecbayl1/2

- 1 Consistently unenthusiastic; no particular interest beyond attending to the tasks
- 2 Typically unenthusiastic; enthusiasm in 1 or 2 instances
- 3 Unenthusiastic half the time
- 4 Typically enthusiastic; unenthusiastic in 1 or 2 instances
- 5 Consistently enthusiastic

**M Fearfulness** baylm ecbaym1/2

- 1 Constantly fearful; never trusting
- 2 Typically fearful; one or two instances of trust
- 3 Fearful half the time; trusting half the time
- 4 Typically trusting; one or two instances of fear
- 5 Constantly trusting; never fearful

**N Frustration with inability to complete tasks** bayln ecbayn1/2

- 1 Consistently becomes frustrated
- 2 Typically becomes frustrated
- 3 Occasionally becomes frustrated
- 4 Rarely becomes frustrated
- 5 Never becomes frustrated

**O Orientation to examiner** baylo ecbayo1/2

- 1 Consistently avoids or resists; never responsive
- 2 Typically avoids or resists; 1 or 2 instances of responsiveness
- 3 Avoids or resists half the time; trusting half the time
- 4 Typically trusting; 1 or 2 instances of fear
- 5 Constantly trusting; never fearful

**P Social engagement** baylp ecbayp1/2

- 1 No attempts to interact socially
- 2 One or two attempts in interact socially
- 3 Several attempts to interact socially
- 4 Many attempts to interact socially
- 5 Constant attempts to interact socially

**Q Cooperation** baylq ecbayq1/2

- 1 Consistently resists suggestions or requests
- 2 Typically resists suggestions or requests; 1 or 2 instances of responsiveness
- 3 Resists suggestions or requests half the time; cooperates half the time
- 4 Typically cooperates; 1 or 2 instances of resistance
- 5 Consistently cooperates

**R Gross-motor movement required by tasks** baylr ecbayr1/2

- 1 Consistently inappropriate
- 2 Typically inappropriate
- 3 Inappropriate half the time; 1 or 2 instances of appropriate gross-motor movement
- 4 Typically appropriate; 1 or 2 instances of inappropriate gross-motor movement
- 5 Consistently appropriate

**S Fine-motor movement required by tasks** bayls ecbays1/2

- 1 Consistently inappropriate
- 2 Typically inappropriate
- 3 Inappropriate half the time; 1 or 2 instances of appropriate fine-motor movement
- 4 Typically appropriate; 1 or 2 instances of inappropriate fine-motor movement
- 5 Consistently appropriate

**T Control of movement** baylt ecbayt1/2

- 1 Consistently clumsy or jerky
- 2 Typically clumsy or jerky
- 3 Jerky or clumsy half the time; smooth or coordinated half the time
- 4 Typically smooth or coordinated
- 5 Consistently smooth or coordinated

**U Hypotonicity** baylu ecbayu1/2

- 1 Consistently hypotonic; like a rag doll
- 2 Typically hypotonic; 1 or 2 instances of normal muscle tone
- 3 Hypotonic half the time; normal muscle tone half the time
- 4 Typically normal muscle tone; 1 or 2 instances of hypotonicity
- 5 Absence of hypotonicity

**V Hypertonicity** baylv ecbayv1/2

- 1 Consistently hypertonic; muscles are rigid or tight
- 2 Typically hypertonic; 1 or 2 instances of normal muscle tone
- 3 Hypertonic half the time; normal muscle tone half the time
- 4 Typically normal muscle tone; 1 or 2 instances of hypertonicity
- 5 Absence of hypertonicity

**W Tremulousness** baylw ecbayw1/2

- 1 Constant
- 2 Frequent
- 3 Occasional
- 4 Infrequent
- 5 None

**X Slow and delayed movements** baylx ecbayx1/2

- 1 Consistently slow and delayed
- 2 Typically slow and delayed; 1 or 2 instances of movement that has appropriate timing and pacing
- 3 Slow and delayed half the time; appropriately timed and paced half the time
- 4 Typically appropriate timing and pacing; one or two instances of slow and delayed movement
- 5 Consistently appropriate timing and pacing

**Y Frenetic movement** bayly ecbayy1/2

- 1 Consistently frenetic
- 2 Typically frenetic; 1 or 2 instances of movement that has appropriate timing and pacing
- 3 Frenetic half the time; appropriately timed and paced half the time
- 4 Typically appropriate timing and pacing; one or two instances of frenetic movement
- 5 Consistently appropriate timing and pacing

**Z Hyperactivity** baylz ecbayz1/2

- 1 Consistently hyperactive; fidgety and agitated in movement
- 2 Typically hyperactive; one or two instances of appropriate activity level
- 3 Hyperactive half the time; appropriate activity half the time
- 4 Typically not hyperactive; one or two instances of hyperactivity
- 5 Consistently not hyperactive; never fidgety or agitated in movement

<b>Factor Scores</b> (not used and not in the raw data)	
1)	Orientation/Engagement add scores for: <b>A + E + G + H + I + L + M + O + P =</b>
2)	Emotional/Regulation add scores for: <b>B + D + F + J + K + N + O + Q + Y + Z =</b>
3)	Motor Quality add scores for: <b>R + S + T + U + V + W + X + Y =</b>
4)	Additional Items score for <b>C</b> only =
5)	<b>TOTAL RAW SCORE</b> add scores for all 26 items, <b>A - Z</b> (NB: don't just add the factors above, because some items are used twice in them)

<b>Observation of Separation Anxiety from Mother</b>			<b>Coding</b>	
1)	Mother needs to come in	sepmum	ecsepm1/2	0=no, 1=yes
a)	How long for?	sepmum1		
b)	Protests when mother leaves?	seppro	ecsepro1/2	0=no, 1=yes
c)	Length of longest protest?	sepprol		
d)	Number of times child protested at mother leaving	seppron		
<b>Observation of Separation Anxiety from Twin</b>				
1)	Child resists being separated from twin	septwin	ecsept1/2	0=no, 1=yes
a)	How long for?	septwin1		

The 'how long' and 'number of times' items above are not retained in the dataset because there were very low levels of response to these questions.