

## 7 Year Twin Interview Item Coding

Entries in red denote variable names and value coding used in the analysis dataset.

Entries in blue denote variable names and value coding used in the raw data.

This document was created on 3 October 2007 and updated in March 2014, August 2018 and August 2022 to reflect changes in the dataset.

### Notes:

1. The layout and formatting of the original score sheet have not been retained in this document. This document is designed purely to show the item variable coding in the dataset (and in the raw data).
2. Most of the twin telephone interview, after the initial "friends" and "warm up" sections, comprised cognitive tests. The recorded code values are designed to record scores (and related categories such as "timed out") rather than responses.
3. The original record on the paper score sheet contained text annotations by the interviewer based on the interviewed child's responses. All relevant verbatim text were coded prior to data entry and recorded in the form of scores or other numeric categories as shown. No verbatim text responses have been retained in the raw data.
4. The Non-Word Recognition test was dropped after cohort 1, hence it was not included on the score sheet for scanning.
5. For all items, the variable names used in the dataset (starting with 'g') differ from those used in the raw data. Both names are therefore shown for each item.
6. For some items, the value codes used in the dataset are identical to those used in the raw data. In such cases, the value coding is shown only once, in red.
7. For other items, the value codes used in the raw data differ from those used in the dataset. In these cases, both codes are shown (raw data in blue, dataset in red).
8. 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. These missing codes are not shown in this document because they apply to all items.
9. All data in the teacher questionnaire is specific to a particular twin (either elder or younger), and the item data are held in variables with names ending in '1', relating to the twin in question (the 'index' twin). However, in the double-entered dataset the variables are duplicated for the co-twins, so data for both twins can be compared within a single row of the dataset. In the double-entered dataset, variables with names ending in '1' refer to the index twin, while variables with names ending in '2' refer to the co-twin.

Twin I.D.

Date of Interview: D   M   Y

date\_d (1-31) date\_m (1-12) date\_y (yyyy)

The data recorded here is not included in the dataset, although it has been used to derive the twin age when the data were collected.

### FRIENDS

Coding changed from raw data to dataset variables as shown. In the fourth question, "don't know" responses have been recoded to missing in the dataset.

			Sometimes	Often	Never
			1	2	3
			1	2	0
<b>gcfrnd11/2</b>	<b>q3</b>	Do you and (friend) play together at break time?			
<b>gcfrnd21/2</b>	<b>q4</b>	Do you share things with each other?			
<b>gcfrnd31/2</b>	<b>q5</b>	Do you tell each other secrets?			
			Yes	No	DK
			1	2	3
			1	0	
<b>gcfrnd41/2</b>	<b>q6</b>	If you fall out do you make friends with others easily?			
			Sometimes	Often	Never
			1	2	3
			1	2	0
<b>gcemo11/2</b>	<b>q7</b>	So, do you enjoy school?			
<b>gcemo21/2</b>	<b>q8</b>	What about having fun at home? Do you have fun at home?			
<b>gcemo31/2</b>	<b>q9</b>	Do you generally feel happy?			

### WARM UP SECTION

Rare DK (don't know) responses below are treated in the same way as wrong scores, hence coded 0 in the dataset variables.

			Right	Wrong	DK
			1	0	2
			1	0	0
<b>gwmup11/2</b>	<b>cqa</b>	Turn to the first page. What can you see? (dog/dalmation)			
<b>gwmup21/2</b>	<b>cqb</b>	Can you tell me what the big number is on the page? (1)			
<b>gwmup31/2</b>	<b>cqc</b>	Can you tell me what the big number is on the page? (2)			
<b>gwmup41/2</b>	<b>cqd</b>	What is the big number you can see on this page? (6)			
<b>gwmup51/2</b>	<b>cqe</b>	Can you tell me what the number is on this page? (12)			

## CONCEPTUAL GROUPING

Note that each of items 1, 2 and 3 is based on a 2-part or 3-part question. Each item is scored 1=correct only if all parts of the question were answered correctly.

Note that a "don't know" (DK) response is treated as an incorrect response and therefore recoded to 0 in the dataset.

Raw data coding:		1	0	2
Dataset coding:		1	0	0
Which number does the little square shape have inside it?	gcg11/2 cq1sc	Both parts correct	One or both parts incorrect	DK
and which number does the big square shape have?				
Now, which number does the red round shape have in it?	gcg21/2 cq2sc	All three parts correct	One, two or three parts incorrect	DK
and which number does the round yellow shape have?				
and which number does the round blue shape have?				
Now, which number does the square shape have?	gcg31/2 cq3sc	Both parts correct	One or both parts incorrect	DK
and which number does the round shape have?				

Each of items 4 to 9 is a one-part question with its own score.

Any DK (don't know) response in the raw data is treated as incorrect and is therefore recoded to 0 in the dataset.

Note that items 4, 5 and 9 have scores 0/1/2, with score 2 given for a fully correct answer and 1 for a partly correct answer.

Note, however, that items 6, 7 and 8 have scores 0/1 (simply 1=correct, 0=incorrect).

Raw data coding:		0	1	2	3
Dataset coding:		0	1	2	0
Tell me the numbers inside all of the square shapes.	gcg41/2 cq4sc	Incorrect	Partly correct	Fully correct	DK
Tell me the numbers inside all of the big yellow shapes	gcg51/2 cq5sc	Incorrect	Partly correct	Fully correct	DK
		0	1	2	
		0	1	0	
Tell me the numbers inside the big round red ones	gcg61/2 cq6sc	Incorrect	Correct	DK	
Can you tell me the number inside the shape that doesn't go with the others?	gcg71/2 cq7sc	Incorrect	Correct	DK	
Which shape BELOW the line goes best with the ones ABOVE the line?	gcg81/2 cq8sc	Incorrect	Correct	DK	
		0	1	2	3
		0	1	2	0
Which TWO from BELOW the line go best with the ones ABOVE the line?	gcg91/2 cq9sc	Incorrect	Partly correct	Fully correct	DK

## FEELINGS

			Sometimes	Often	Never
		Raw data coding:	1	2	3
		Dataset coding:	1	2	0
gcemo41/2	c10	Do you worry about things that might happen?			
gcemo51/2	c11	and how about feeling scared, do you ever feel scared?			
gcemo61/2	c12	Do you ever feel sad?			
gcemo71/2	c13	And do you ever feel like crying?			

## SIMILARITIES

In this test, any DK (don't know) response in the raw data is treated as incorrect and is therefore recoded to 0 in the dataset.

Note that items 1 to 4 have 0/1 scores: 1=correct, 0=incorrect.

Items 5 to 13 have 0/1/2 scores: 2=fully correct, 1=partly correct, 0=incorrect.

			0	1	2	DK
		Raw data coding:	0	1		2
		Dataset coding:	0	1		0
gsim011/2	sq1sc	In what way are a PIANO and a GUITAR alike?				
gsim021/2	sq2sc	CANDLE and LAMP				
gsim031/2	sq3sc	WHEEL and BALL				
gsim041/2	sq4sc	MILK and WATER				
			0	1	2	DK
		Raw data coding:	0	1	2	3
		Dataset coding:	0	1	2	0
gsim051/2	sq5sc	CAT and MOUSE				
gsim061/2	sq6sc	ELBOW and KNEE				
gsim071/2	sq7sc	TELEPHONE and RADIO				
gsim081/2	sq8sc	PAINTING and STATUE				
gsim091/2	sq9sc	ICE and STEAM				
gsim101/2	sq10sc	TEMPERATURE and LENGTH				
gsim111/2	sq11sc	RUBBER and PAPER				
gsim121/2	sq12sc	FIRST and LAST				
gsim131/2	sq13sc	SALT and WATER				

## TEST OF WORD READING ABILITIES (TOWRE)

Here, the data recorded are a score for each of the four parts of the test. Each score has integer values as indicated. The values are the same in the raw data as in the dataset.

			Range of score values
gtowwdp1/2	to1sc	Reading Words – practice	0 to 8
gtowwd1/2	to2sc	Reading Words	0 to 85
gtownwp1/2	to3sc	Reading Non-Words – practice	0 to 8
gtownw1/2	to4sc	Reading Non-Words	0 to 54

## VOCABULARY

In this test, any DK (don't know) response in the raw data is treated as incorrect and is therefore recoded to 0 in the dataset.

All items have 0/1/2 scores: 2=fully correct, 1=partly correct, 0=incorrect.

			0	1	2	DK
		Raw data coding:	0	1	2	3
		Dataset coding:	0	1	2	0
gvoc011/2	vq1sc	What is a CLOCK?				
gvoc021/2	vq2sc	UMBRELLA				
gvoc031/2	vq3sc	HAT				
gvoc041/2	vq4sc	COW				
gvoc051/2	vq5sc	BICYCLE				
gvoc061/2	vq6sc	ALPHABET				
gvoc071/2	vq7sc	ANCIENT				
gvoc081/2	vq8sc	BRAVE				
gvoc091/2	vq9sc	ISLAND				
gvoc101/2	vq10sc	NONSENSE				
gvoc111/2	vq11sc	PRECISE				
gvoc121/2	vq12sc	BOAST				
gvoc131/2	vq13sc	MIGRATE				
gvoc141/2	vq14sc	STENUOUS				
gvoc151/2	vq15sc	MIMIC				
gvoc161/2	vq16sc	SECLUDE				
gvoc171/2	vq17sc	UNANIMOUS				
gvoc181/2	vq18sc	COMPEL				

## PICTURE COMPLETION

All items in this test have scores 0/1: 1=correct, 0=incorrect.

In the raw data, as shown, other codes are used. 3=DK (don't know) and 4=timed out are both treated as incorrect responses, so are recoded to 0 in the dataset variables. 2="right other" indicates an alternative correct response which is recoded to 1=correct in the dataset variables.

		What is missing in the picture:	right	right other	wrong	timed out	DK
		Raw data coding:	1	2	0	4	3
		Dataset coding:	1	1	0	0	0
gpc011/2	pq1sc	Lead					
gpc021/2	pq2sc	Ear					
gpc031/2	pq3sc	Flap					
gpc041/2	pq4sc	Little finger nail					
gpc051/2	pq5sc	Elephant's leg/foot					
gpc061/2	pq6sc	Door hinge					
gpc071/2	pq7sc	Doll					
gpc081/2	pq8sc	Handle/knob on door					
gpc091/2	pq9sc	Holes on belt					
gpc101/2	pq10sc	One of steps/rungs on ladder					
gpc111/2	pq11sc	Girls eyelash					
gpc121/2	pq12sc	Plughole/plug					
gpc131/2	pq13sc	Filament/wires in light bulb					
gpc141/2	pq14sc	Black keys on piano					
gpc151/2	pq15sc	Screw/bolt on scissors					
gpc161/2	pq16sc	Mercury/alcohol in bulb					
gpc171/2	pq17sc	A section/piece of the lattice					
gpc181/2	pq18sc	One of the fish's gills					
gpc191/2	pq19sc	Labels on tins/cans					
gpc201/2	pq20sc	Spokes on umbrella					
gpc211/2	pq21sc	Shadow of the tree					

# NON-WORD RECOGNITION TEST

Note that this test was dropped after cohort 1.

In the raw data, each variable records the response, 1=same, 2=different.

In the dataset, the variables are recoded so that each variable records the score, 1=correct, 0=incorrect.

Lists of 3 non-words:

item	First list			Second list			same / different
1	joop	keech	mup	keech	joop	mup	d
2	modge	gab	toock	modge	gab	toock	s
3	coll	choom	padge	coll	padge	choom	d
4	nuck	gop	teed	nuck	gop	teed	s

Lists of 4 non-words:

item	First list				Second list				same /diff
5	boodge	ked	parn	mot	boodge	ked	parn	mot	s
6	lod	jark	noog	pab	jark	lod	noog	pab	d
7	mern	gell	chud	tidge	mern	gell	tidge	chud	d
8	tam	neb	gock	chool	tam	neb	gock	chool	s

Lists of 5 non-words:

	First list					Second list					
9	jooch	larm	cug	didge	teeb	jooch	larm	cug	didge	teeb	s
10	chell	gerb	torm	pook	jarn	chell	gerb	torm	pook	jarn	s
11	bool	jeck	chorg	mip	tud	bool	chorg	jeck	mip	tud	d
12	tem	corp	darch	jit	mun	corp	tem	darch	jit	mun	d

Summary of variables and their coding:

Item	gnwr	qw	Correct response	Raw variable coding (response)		Dataset variable coding (score)	
				Same	Different	Same	Different
1	gnwr011/2	qw01	Different	1	2	0	1
2	gnwr021/2	qw02	Same	1	2	1	0
3	gnwr031/2	qw03	Different	1	2	0	1
4	gnwr041/2	qw04	Same	1	2	1	0
5	gnwr051/2	qw05	Same	1	2	1	0
6	gnwr061/2	qw06	Different	1	2	0	1
7	gnwr071/2	qw07	Different	1	2	0	1
8	gnwr081/2	qw08	Same	1	2	1	0
9	gnwr091/2	qw09	Same	1	2	1	0
10	gnwr101/2	qw10	Same	1	2	1	0
11	gnwr111/2	qw11	Different	1	2	0	1
12	gnwr121/2	qw12	Different	1	2	0	1