

**MIDUS II Cognitive Test Battery** (phone interview)  
**PO1 AG20166 & RO1 AG17920**

**Brief Test of Adult Cognition by Telephone (BTACT) with Stop & Go Switch Task (SGST)**

**Margie E. Lachman, Project Leader**

**Patricia A. Tun, Co-Investigator**

**Brandeis University**

**April 2003**

In this phone interview I will ask you to try and do some exercises that involve remembering and making judgments about words and numbers. Before we begin, I need to tell you a few things. Your participation is completely voluntary. If you prefer not to answer any question, just let me know and we will go on to the next question. The information that you give me will be confidential and used for statistical analysis only. It will be identified only by computer code and at no time will your name or other identifying information be attached to the survey results. Therefore, I won't be able to give any specific feedback. After the whole study is completed we will send you a summary of our overall findings.

These tasks are not harmful in any way. The exercises will take about 15 minutes. Do you have any questions about your participation in this study?"

We will be tape recording the interview today so that we can score the exercises later. Do I have your permission to go ahead with this?

*(If participant seems distracted, or there is noise or commotion in background such as young children, TV or radio, or other people talking, say "It is important that you are able to concentrate without being distracted while we do these exercises. Would it be better for me to call you back another time?" If so, make an appointment for another time.)*

First I would like to make sure that you are able to hear me clearly. Please repeat these numbers after me: 2, 8, 3, 6, 9. *(If not loud enough, ask person to speak up clearly.)* Could you hear me clearly?

Now you will hear some words and numbers. Please do not use a paper and pencil for any of the questions. We suggest that you close your eyes while you are doing these to help you concentrate. Some of the questions will be easy for you, and some will be harder. We do not expect anyone to get all of these correct - just do the best you can.

**WORD LIST RECALL** (1.5 minutes on average)  
Rey Auditory-Verbal Learning Test (Lezak, 1983)

I am going to read a list of 15 words. Listen carefully. When I am finished, you are to repeat as many of the words as you can remember. It doesn't matter in what order you repeat them. Just try to remember as many as you can. I will say each word only one

time, and I cannot repeat any words. You will have up to one and a half minutes, and I will not say anything until I tell you that your time is up. Do you have any questions? Are you ready?

*(Read with one second interval between each word)*

DRUM  
CURTAIN  
BELL  
COFFEE  
SCHOOL  
PARENT  
MOON  
GARDEN  
HAT  
FARMER  
NOSE  
TURKEY  
COLOR  
HOUSE  
RIVER

Now tell me as many words as you can remember.

*(Record words recalled **correctly** by **entering the one or two letter code**, as well as repetitions of same word and intrusions).*

**If person stops before 1 1/2 minutes is up, say, “There’s still time left, can you think of any more?”**

**Good, now let’s go on.**

**DIGITS BACKWARD** (2.5 minutes)

WAIS III (1997)

I am going to say some strings of numbers, and when I am done I would like you to repeat them backwards, in the reverse order from which I said them. So if I said “3, 8”, you would say “8, 3”. Do you understand? The sets will get larger as we go.

*(Read in monotone, 1 sec per number..Drop your voice on the last digit to indicate it is time to respond. If they get the first trial on one level, move on to the next level.*

*Discontinue after 2 trials missed on a level).*

1. 2 - 4 (4 - 2) \_\_\_\_\_  
5 - 7 (7 - 5) \_\_\_\_\_
  
2. 6 - 2 - 9 (9 - 2 - 6) \_\_\_\_\_  
4 - 1 - 5 (5 - 1 - 4) \_\_\_\_\_
  
3. 3 - 2 - 7 - 9 (9 - 7 - 2 - 3) \_\_\_\_\_  
4 - 9 - 6 - 8 (8 - 6 - 9 - 4) \_\_\_\_\_
  
4. 1 - 5 - 2 - 8 - 6 (6 - 8 - 2 - 5 - 1) \_\_\_\_\_  
6 - 1 - 8 - 4 - 3 (3 - 4 - 8 - 1 - 6) \_\_\_\_\_
  
5. 5 - 3 - 9 - 4 - 1 - 8 (8 - 1 - 4 - 9 - 3 - 5) \_\_\_\_\_  
7 - 2 - 4 - 8 - 5 - 6 (6 - 5 - 8 - 4 - 2 - 7) \_\_\_\_\_
  
6. 8 - 1 - 2 - 9 - 3 - 6 - 5 (5 - 6 - 3 - 9 - 2 - 1 - 8) \_\_\_\_\_  
4 - 7 - 3 - 9 - 1 - 2 - 8 (8 - 2 - 1 - 9 - 3 - 7 - 4) \_\_\_\_\_
  
7. 9 - 4 - 3 - 7 - 6 - 2 - 5 - 8 (8 - 5 - 2 - 6 - 7 - 3 - 4 - 9) \_\_\_\_\_  
7 - 2 - 8 - 1 - 9 - 6 - 5 - 3 (3 - 5 - 6 - 9 - 1 - 8 - 2 - 7) \_\_\_\_\_

**Good, now let's go on.**



**45-60 sec.**

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**Good, now let's go on.**

**RED/GREEN TEST** (3-3.5 minutes)

Next I am going to see how quickly you can respond to the words RED and GREEN. Every time I say RED you will say STOP, and every time I say GREEN you will say GO. Try to be accurate, but respond as quickly as you can. So when I say RED you will say...

And when I say GREEN you will say...

Do you have any questions? Let's begin. This will last about 1 minute.

*(Do 20 trials. Allow 1 second between response and next cue. Record accuracy with 1 for correct answers, 0 for incorrect or self-corrections, 2 for invalid trials.)*

**RED/GREEN TASK: BASELINE NORMAL**

ALLOW 1 SECOND BETWEEN TRIALS

1	GREEN	GO
2	RED	STOP
3	G	GO
4	R	STOP
5	R	STOP
6	G	GO
7	R	STOP
8	G	GO
9	R	STOP
10	G	GO
11	R	STOP
12	G	GO
13	G	GO
14	R	STOP
15	R	STOP
16	G	GO
17	R	STOP
18	G	GO
19	G	GO
20	R	STOP

Now you will do just the reverse of what you have been doing. So when you hear RED you will say GO, and when you hear GREEN you will say STOP. Do you have any questions? When I say RED you will say... and when I say GREEN you will say...

Try to be accurate, but answer as quickly as you can.

*(Do 20 trials. Allow one second between response and next cue. Record accuracy with 1 for correct answers, 0 for incorrect or self-corrections, 2 for invalid trials.)*

**RED/GREEN TASK: BASELINE SWITCHED**  
ALLOW 1 SECOND BETWEEN TRIALS

1	GREEN	STOP
2	RED	GO
3	G	STOP
4	R	GO
5	R	GO
6	G	STOP
7	R	GO
8	G	STOP
9	R	GO
10	G	STOP
11	R	GO
12	G	STOP
13	G	STOP
14	R	GO
15	R	GO
16	G	STOP
17	R	GO
18	G	STOP
19	G	STOP
20	R	GO

Now we are going to mix up these two types of responses. When I give the cue NORMAL, you will respond the way you did at first: red means stop, green means go. But when I say REVERSE, you will give the reverse responses: RED means GO, GREEN means STOP. We will alternate between the NORMAL and the REVERSE every few trials. Let's try a few for practice.

NORMAL	RED	STOP
	GREEN	GO
REVERSE	RED	STOP
	GREEN	STOP
NORMAL	RED	GO
	RED	GO
	GREEN	GO
REVERSE	RED	STOP
	GREEN	GO
	GREEN	STOP
	RED	GO

Do you have any questions? . Try to be accurate, but answer as quickly as you can. This will take about one minute.

(Allow one second between cue word (normal or switch) and stimulus color item. Also allow one second between subject's response and the next stimulus item. Record correct, incorrect, and invalid trials.)

**RED/GREEN TASK: EXPERIMENTAL TRIALS**

1	ALLOW 1 SEC	NORMAL	GREEN	GO
2	INTERVALS		RED	STOP
3			G	GO
4		REVERSE	R	GO
5			R	GO
6			G	STOP
7			R	GO
8			R	GO
9		NORMAL	R	STOP
10			G	GO
11			R	STOP
12			G	GO
13			G	GO
14			R	STOP
15		REVERSE	G	STOP
16			G	STOP
17			R	GO
18			G	STOP
19		NORMAL	G	GO
20			R	STOP
21			G	GO
22			G	GO
23			R	STOP
24		REVERSE	G	STOP
25			G	STOP
26			R	GO
27			G	STOP
28			R	GO
29		NORMAL 4	R	STOP
30			G	GO
31			R	STOP
32			G	GO

Good, now let's do something different.



**NUMBER SERIES** (2.5 minutes)

Salthouse & Prill (1987)

In the next exercise I will read you a series of numbers that may get larger or smaller in value. At the end you will try to figure out what the next number would be. So if the numbers were 2,4,6,8,10, the next number would be 12. After I say each number I will pause for as long as you need, and then you should say “okay” when you are ready for me to go on to the next number in the group. So if I said 2, you should say “okay” when you are ready for me to go on to the next number, then I say 4, you say okay, 6, okay, 8, okay, 10, and at the end I will ask you what you think the next number would be. In this case the next number would be 12, as each number has increased by 2.

Let’s try one for practice: 35 (okay), 30 (okay), 25 (okay), 20 (okay), 15 (okay) **AND** the next number would be....???? (The answer should be 10 as each number has decreased by 5). There will be different patterns, and some of these will be harder than others, so just do the best you can. If you are not sure of the answer, it is okay to guess. Do you have any questions?

*(Pause after each of the first 4 items for okay response; after the last item, say **AND** the next number is...?).*

(1) 18, 20, 24, 30, 38.....(48) \_\_\_\_\_

Okay. Are you ready for another? The next set is:

(2) 81, 78, 75, 72, 69.....(66) \_\_\_\_\_

Okay. Are you ready for another? The next set is

(3) 7, 12, 16, 19, 21.....(22) \_\_\_\_\_

Okay. Are you ready for another? The next set is

(4) 28, 25, 21, 16, 10.....( 3) \_\_\_\_\_

Okay. Are you ready for another? The next set is

(5) 20, 37, 18, 38, 16.....(39) \_\_\_\_\_

Good, let’s move on.

**BACKWARD COUNTING** (45 seconds)

Next, I would like to see how fast you can count backwards. When I give the signal to begin, start counting backwards from 100 out loud, as fast as you can. So you will say 100, 99, 98 and so on. You will have half a minute. Do you have any questions? I will let you know when the time is up.

Begin *(Time for 30 seconds)*

*Record final number reached, and number of errors.*

Good, now one more question.

**SHORT-DELAY WORD RECALL** (40 seconds on average)

Do you remember the very first list of 15 words that I read to you in the beginning? It was the very first thing we did. (WAIT FOR SUBJECT TO RESPOND YES. MAKE SURE THEY UNDERSTAND THAT IT IS THE WORD LIST, NOT THE CATEGORY FLUENCY TEST). I want you to tell me as many of the words from that list as you can. You will have up to one minute. I will tell you when your time is up. (*Record words recalled, including intrusions and repetitions .*) *If person stops before 1 minute is up, say, “there is still more time can you think of any more?”*

*DRUM  
CURTAIN  
BELL  
COFFEE  
SCHOOL  
PARENT  
MOON  
GARDEN  
HAT  
FARMER  
NOSE  
TURKEY  
COLOR  
HOUSE  
RIVER*

Thank you very much for your help. We appreciate you taking the time to help us with this research project.

THANK YOU!

*(Encouraging comments to be used if the person expresses concern about performance:*

*During the test: “Just do the best you can.”*

*Remember, we do not expect anyone to get all of these questions correct.”*

*“Don’t worry. We have deliberately made these questions challenging. If people could get them all right, we would not learn anything. We’re trying to find which questions are harder than others.”*