MIDUS Refresher 1 Cognitive Project

Read Me First
General Introduction to the Cognitive Test Battery

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MIDUS
Midlife in the United States

This document serves as a general introduction for the reader to the cognitive test data in MIDUS Refresher. Cognitive testing was carried out using the Brief Test of Adult Cognition by Telephone (BTACT).

For more information about the BTACT instrument see:

- Lifespan Lab Website*:*

http://www.brandeis.edu/departments/psych/lachman/instruments/index.html

- Monitoring cognitive functioning: Psychometric properties of the Brief Test of Adult Cognition by Telephone (published article; doi: 10.1177/1073191113508807)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4050038/

REFERENCES

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Lachman, M.E., Agrigoroaei, S., Murphy, C., & Tun, P. (2010). Frequent cognitive activity compensates for education differences in episodic memory. *The American Journal of Geriatric Psychiatry*, 18, 4-10, DOI: 10.1097/JGP.0b013e3181ab8b62

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Notes:

1. In MIDUS 2, factor analysis revealed two cognitive factors: Episodic Memory and Executive Functioning (see Lachman, Agrigoroaei, Tun, & Weaver, 2014). We have not yet carried out the factor analysis in MIDUS Refresher.

2. The SGST latency values vary as a function of phone type (see variable RA3PHONTYPE= landline (1) vs. cell phone (2)), with longer lag times usually obtained for cell phones. In order to adjust for the cell phone delays, we administered a metronome task at the beginning and at the end of the SGST. A metronome was set at 1 second intervals and the participants were instructed to listen, to get the beat, and then to count out loud from one to ten at the exact time as the metronome clicks sounded.

These are the instructions used at the beginning of the SGST:
Next you will be listening to a series of evenly spaced clicks and counting along with the click. Try to say the number exactly when the click sounds. First I'll demonstrate, please listen (metronome clicks start, one beat per second and the experimenter counts on the beat from one to ten). Note that I said the numbers as the click was sounding. Now I will play the clicks again, please listen to two or three clicks to get the timing, then begin counting from one to ten. Say the numbers right when the clicks sound, not before or after the click, but at the same time the click is sounding. Do you have any questions? (The experimenter waits for participant to respond). Let's begin. (Start metronome)
(After the participant counts to ten): Good, now let's do something different.

These are the instructions used at the end of the SGST:
Again, you will listen to a series of evenly spaced clicks, and count along much like we did a few moments ago. Please listen to two or three clicks to get the timing, then count from one to ten just like you did before. Say the numbers right when the click sounds, not before or after the click, but at the same time the click is sounding. Do you have any questions? (The experimenter waits for participant to respond) Let's begin. (Start metronome) (After participant counts to ten): Good, now let's do something different.

This task generated 20 time lags between the metronome clicks and the numbers (10 measured at the beginning and 10 at the end of the SGST). Given the large variability and time to get the gist of the task, the first two lags in each block (i.e., lag 1, lag 2 and lag 11, lag 12) were not taken into account in the scoring. The 16 remaining lags were used to compute two scores for each participant measuring the cell phone delays at the beginning and at the end of the SGST, respectively. The first score (RA3TSMMB) was the median of the first 8 lags (from 3 to 10); the second score (RA3TSMME) was the median of the last 8 lags (from 13 to 20). In order to adjust for the cell phone delays we recommend (1) subtracting the mean of these two scores [RA3TSMMM= mean (RA3TSMMB, RA3TSMME)] [1] from the SGST latency composite scores (see file MR1_P3_BTACT_Variable-Naming_20251119). These adjustment scores (RA3TSMMM) are only provided for the cell phones in which there was a lag between the counting and the metronome clicks[2]. A score of 0 indicates the absence of a lag between the counting and the metronome clicks.

[1] When one of the two blocks (i.e., beginning & end) was missing, the value of the RA3TSMMM variable was the median of the available block.
[2] For 24 cases the cell phone adjustments were not performed because of missing metronome data.

A. FILES ASSOCIATED WITH PROJECT 3:

DOCUMENT	FILE
1. Data File Notes: gives an overview of the BTACT	*MR1_P3_BTACT_DatafileNotes_20251124.docx*
2. Variable Naming Document: lists for each measure the specific variable name, ranges, and computational formula, if applicable	*MR1_P3_BTACT_VariableNaming_20251124.docx*
3. Codebook	*MR1_P3_BTACT_Codebook_20251119.pdf*
4. Data file (SPSS format)	*MR1_P3_BTACT_N2763_20251119.sav*

B. DATASET: Notes about the sample

1. Note that the data file contains the ID numbers for all participants who completed any of the cognitive subtests, even if they did not have complete data for all subtests. Thus, the total N may vary slightly from subtest to subtest.

2. The following cases terminated the telephone interview during the cognitive testing. We have included them in the dataset to provide the largest possible sample for each specific subtest. If you would like to analyze the sample for those who completed the cognitive interview, you should omit the following cases from your analyses: 30061, 32560, 35596, 32635, 39252, 32896, 35703, 35429, 32252, 31778, 38956, 31103, 32163, 36603, 39138, 34246, 30800, 39389, 38442, 32788, 32160, 36569, 38914, 31868, 39323, 32013, 36700, 34040, 30311, 36835, 35308, 31932, 34813, 34459, 30359, 38468, 31229, 30196, 35140, 39080.

3. For some analyses, it may be appropriate to exclude cases who report speaking only a language other than English (RA1SD5=4), or who report a stroke (RA1PA6A=1), Parkinson's disease (RA1PA6C=1), or other neurological disorder (RA1PA6D=1).

4. Data from Milwaukee Refresher respondents (who completed a separate CAPI fielding effort prior to participating in the BTACT assessment) have been integrated into this dataset. These cases can be identified by using the SAMPLMAJ variable. More details about the Milwaukee Refresher sample, including a field report, can be found at ICPSR (#35722).