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Midlife in the United States (MIDUS 3): Cognitive Project, 2013-2017

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MIDUS 3 Variable Naming for the Cognitive Test Battery

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MIDUS 3 PROJECT 3:
Variable Naming Cognitive Test Battery

Brief Test of Adult Cognition by Telephone (BTACT)

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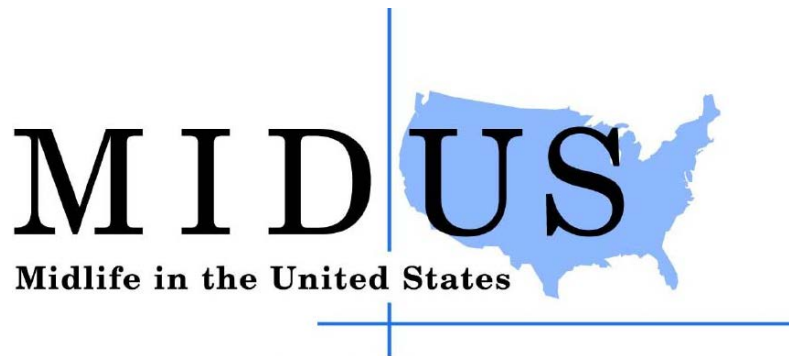
A. Coding conventions for data

    a) YES = 1, NO = 2
    b) INCORRECT: 95 (for Stop & Go Switch Task only)
    c) DON'T KNOW (7's): 7, 97, 997, 9997
    d) REFUSED/MISSING (8's): 8, 98, 998, 9998
    e) INAPP/INVALID (9's): 9, 99, 999, 9999

B. Naming conventions for BTACT variables

For the MIDUS 3 the first character of each variable name will be "C". Otherwise, the same naming conventions developed for MIDUS 2 apply.

a) 1st letter – "C," to indicate MIDUS 3
b) 2nd letter – indicates project number 3
c) 3rd letter – indicates type of test: T= BTACT cognitive tests
d) 4th, 5th, 6th, 7th, 8th letters – indicates either:

    i. The individual test:
- WLI: Word List Recall – Immediate (Note: Columns 7 & 8 indicate response number; 1-26 possible responses)
- BD: Backward Digit Span
- CTFL: Category Fluency (also CTF)
- NS: Number Series (Note: Column 6 indicates trial number 1-5)
- BK: Backward Counting
- WLD: Word List Recall – Delayed (Note: Columns 7 & 8 indicate response number; 1-26 possible responses)

    ii. A composite measure:
- WLF: Word List: Proportion Forgotten Between Immediate and Delayed
- COMP: BTACT Composite Score

    iii. A flag variable: Variables with "FP" as their 7th and 8th characters serve as flag variables for potentially problematic cases. This variable indicates, by test, which cases were identified at Brandeis by our data cleaning as being problematic due to test disruption, interview equipment failures, or other problems. We recommend users exclude these tests for these specific cases.

Note: **Bold** variable names below indicate composite or total scale scores.

VARIABLE NAME	VARIABLE LABEL	VALUES
Word List Recall: Immediate		
C3TWLIFP	Word List Immediate flagged problematic?	1=YES 2=NO 8=REFUSED/MISSING
C3TWLI1 … C3TWLI26	Word List Immediate: Recalled #1 … #26 (allows for max 15 correct responses + up to 11 intrusions/repetitions)	1=Word#1 2= Word#2 3= Word#3 4= Word#4 5= Word#5 6= Word#6 7= Word#7 8= Word#8 9= Word#9 10= Word#10 11= Word#11 12= Word#12 13= Word#13 14= Word#14 15= Word#15 90=NON-LIST INTRUSION 98=REFUSED/MISSING
C3TWLITU	Word List Immediate: Tot Unique Items	Range: 0 to 15; Sum of all correct, unique responses from C3TWLI1 to C3TWLI26 98=REFUSED/MISSING
C3TWLITR	Word List Immediate: Tot # Repetitions	Sum of all repeated responses from C3TWLI1 to C3TWLI26 98=REFUSED/MISSING
C3TWLITI	Word List Immediate: Tot # Intrusions	Sum of all non-list intrusions from C3TWLI1 to C3TWLI26 98=REFUSED/MISSING
Digits Backward		
C3TDBFP	Digits Backward flagged problematic?	1=YES 2=NO 8=REFUSED/MISSING
C3TDBS	Digits Backward: highest # digits recall	0, 2 to 8 98=REFUSED/MISSING

Category Fluency

C3TCTFFP	Category Fluency flagged problematic?	1=YES 2=NO 8=REFUSED/MISSING
C3TCTFLU	Category Fluency: Tot Unique Items	Sum of all in-category, unique items named 98=REFUSED/MISSING
C3TCTFLR	Category Fluency: Tot # Repetitions	Sum of repeated items named in-category 98=REFUSED/MISSING
C3TCTFLI	Category Fluency: Tot # Intrusions	Sum of all non-category intrusions 98=REFUSED/MISSING

Number Series

C3TNSFP	Number Series flagged problematic?	1=YES 2=NO 8=REFUSED/MISSING
C3TNS1 … C3TNS5	Number Series: #1…#5 (number reported)	997=DON'T KNOW 998=REFUSED/MISSING
C3TNS1C… C3TNS5C	Number Series #1…#5: correct?	1=YES, CORRECT 2=NO, INCORRECT 8=REFUSED/MISSING
C3TNSTOT	Number Series: Tot Correct	Range: 0 to 5; 8=REFUSED/MISSING

Backward Counting

C3TBKFP	Backward Counting flagged problematic?	1=YES 2=NO 8=REFUSED/MISSING
C3TBKCT	Backward Counting: last # reached	998=REFUSED/MISSING
C3TBKERR	Backward Counting: # of errors	998=REFUSED/MISSING

C3TBKTOT	BK: (100-(C3TBKCT + C3TBKERR))	Total correct #s produced
		998=REFUSED/MISSING

Word List Recall-Delayed

C3TWLDFP	Word List Delayed flagged problematic?	1=YES 2=NO 8=REFUSED/MISSING
C3TWLD1… C3TWLD26	Word List Delayed: Recalled #1…#26 (allows for max 15 correct responses + up to 11 intrusions/repetitions)	1=Word#1 2= Word#2 3= Word#3 4= Word#4 5= Word#5 6= Word#6 7= Word#7 8= Word#8 9= Word#9 10= Word#10 11= Word#11 12= Word#12 13= Word#13 14= Word#14 15= Word#15 90=NON-LIST INTRUSION 98=REFUSED/MISSING
C3TWLDTU	Word List Delayed: Tot Unique Items	Range: 0 to 15; Sum of all correct, unique responses from C3TWLD1 to C3TWLD26 98=REFUSED/MISSING
C3TWLDTR	Word List Delayed: Tot # Repetitions	Sum of all repeated responses from C3TWLD1 to C3TWLD26 98=REFUSED/MISSING
C3TWLDTI	Word List Delayed: Tot # Intrusions	Sum of all non-list intrusions from C3TWLD1 to C3TWLD26 98=REFUSED/MISSING

	Composite Measures	
C3TWLF	Word List: Proportion Forgotten Between Immediate and Delayed	(C3TWLITU-C3TWLDTU)/C3TWLITU 8=REFUSED/MISSING
C3TCOMP	BTACT Composite Score	Mean of z-scores* for all tests except SGST: Word Lists (sum of Immediate and Delayed: C3TWLITU + C3TWLDTU), Digits Backward (C3TDBS), Category Fluency (C3TCTFLU), Number Series (C3TNSTOT), and Backward Counting (C3TBKTOT) 8=REFUSED/MISSING
C3TEM	BTACT Episodic Memory Factor	Mean of z-scores* for Word List Immediate (C3TWLITU) and Word List Delayed (C3TWLDTU) 8=REFUSED/MISSING
C3TEF	BTACT Executive Functioning Factor	Mean of z-scores* for Digits Backward (C3TDBS), Category Fluency (C3TCTFLU), Number Series (C3TNSTOT), Backward Counting (C3TBKTOT), and mean of switch and nonswitch trials (C3TSMXBB multiplied by -1) in the Stop & Go Switch Task (SGST)† 8=REFUSED/MISSING

* The z-scores were computed using the means and standard deviations obtained on the main national MIDUS 2 sample (N = 4206) to allow for longitudinal comparisons
† See description of SGST variables below. Also note the recommendation to use the C3TSFC filter described at the end of this document when working with SGST variables. The SGST scores were corrected based on the metronome values.

Naming conventions for Stop and Go Switch Task (SGST) variables

a) **Naming convention for individual trials (raw scores)**
   i. 1st, 2nd, and 3rd character: by default is the **C3T** code that indicates MIDUS 3, Project 3, BTACT Cognitive Battery
   - C = MIDUS 3
   - 3 = Project 3
   - T = BTACT Cognitive Battery
   ii. 4th character indicates the **S**top & Go Switch Task
   iii. 5th character: W = Ra**W** scores
   iv. 6th character indicates the subtest
   - N = **N**ormal single-task
   - R = **R**everse single-task
   - X = mi**X**ed-task
   v. 7th and 8th character indicate trial number (**1**-**20** for single-task, **1**-**32** for mixed-task)

b) **Naming convention for Normal and Reverse single-tasks composite scores**
   i. 1st, 2nd, and 3rd character, by default, is the **C3T** code that indicates MIDUS 3, Project 3, BTACT Cognitive Battery
   - C = MIDUS 3
   - 3 = Project 3
   - T = BTACT Cognitive Battery
   ii. 4th character indicates the **S**top & Go Switch Task
   iii. 5th character indicates measure
   1. For accuracy scores
      - T = **T**otal correct
      - V = invalid
      - P = **P**ercent correct
   2. For latency scores
      - M = **M**edian (or mean of medians)
   iv. 6th character indicates the subtest
   - N = **N**ormal single-task
   - R = **R**everse single-task
   v. 7th character indicates the scores corrected based on the metronome values
   - C = **C**orrected

c) **Naming convention for Mixed-task composite scores**
   i. 1st, 2nd, and 3rd character, by default, is the **C3T** code that indicates MIDUS 3, Project 3, BTACT Cognitive Battery
   - C = MIDUS 3
   - 3 = Project 3

T = BTACT Cognitive Battery
- ii. 4th character indicates the **S**top & Go Switch Task
- iii. 5th character indicates measure
    1. For accuracy scores
        T = **T**otal correct
        V = invalid
        P = **P**ercent correct
    2. For latency scores
        M = **M**edian (or mean of medians)
- iv. 6th character indicates the subtest
        X = mi**X**ed-task
- v. 7th character indicates the condition
        N = **N**ormal
        R = **R**everse
        B = combined
- vi. 8th character indicates the trial type
        S = **S**witch
        O = n**O**nswitch
        B = combined
- vii. 9th character indicates the scores corrected based on the metronome values
        C = **C**orrected

d) **Naming convention for metronome tasks**
- i. 1st, 2nd, and 3rd character, by default, is the **C3T** code that indicates MIDUS 3, Project 3, BTACT Cognitive Battery
        C = MIDUS 3
        3 = Project 3
        T = BTACT Cognitive Battery
- ii. 4th character indicates the **S**top & Go Switch Task
- iii. 5th character indicates measure
        M = **M**edian
- iv. 6th character indicates the subtest
        M = **M**etronome
- v. 7th character indicates the timing of administration
        B = at the **B**eginning of the SGST (C3TSMMB)
        E = at the **E**nd of the SGST (C3TSMME)
        M = **M**ean of the Beginning and End scores:
        C3TSMMM = mean (C3TSMMB, C3TSMME)

e) **Composite scores: variable names**
- i. Accuracy
    1. **C3TSPN**: normal single-task % correct
    2. **C3TSPR**: reverse single-task % correct

3. **C3TSPXNO**: mixed-task normal nonswitch % correct
4. **C3TSPXRO**: mixed-task reverse nonswitch % correct
5. **C3TSPXBO**: mixed-task nonswitch % correct
6. **C3TSPXNS**: mixed-task normal switch % correct
7. **C3TSPXRS**: mixed-task reverse switch % correct
8. **C3TSPXBS**: mixed-task switch % correct
9. **C3TSPXBB**: all mixed-task trials % correct

ii. Latencies

1. **C3TSMN**: normal single-task median RT (reaction time)
2. **C3TSMR**: reverse single-task median RT (reaction time)
3. **C3TSMB**: mean(C3TSMN, C3TSMR) (normal and reverse)
4. **C3TSMXNO**: mixed-task normal nonswitch median RT
5. **C3TSMXRO**: mixed-task reverse nonswitch median RT
6. **C3TSMXBO**: median RT of all mixed-task nonswitch
7. **C3TSMXNS**: mixed-task normal switch median RT
8. **C3TSMXRS**: mixed-task reverse switch median RT
9. **C3TSMXBS**: median RT of all mixed-task switch
10. **C3TSMXBB**: mean(C3TSMXBO, C3TSMXBS) (nonswitch and switch trials)

iii. Latencies corrected based on the metronome values

1. **C3TSMNC** = C3TSMN - C3TSMMM.
2. **C3TSMRC =** C3TSMR - C3TSMMM.
3. **C3TSMBC =** mean(C3TSMNC, C3TSMRC) (normal and reverse)
4. **C3TSMXNOC =** C3TSMXNO - C3TSMMM.
5. **C3TSMXROC** = C3TSMXRO - C3TSMMM.
6. **C3TSMXBOC =** C3TSMXBO - C3TSMMM.
7. **C3TSMXNSC** = C3TSMXNS - C3TSMMM.
8. **C3TSMXRSC** = C3TSMXRS - C3TSMMM.
9. **C3TSMXBSC** = C3TSMXBS - C3TSMMM.
10. **C3TSMXBBC** = mean(C3TSMXBOC, C3TSMXBSC) (nonswitch and switch trials)

f) **Naming convention for cost variables**
   i. 1st, 2nd, 3rd, 4th characters: as above: **C3TS**, for MIDUS 3, Project 3 BTACT Cognitive Battery, Stop & Go Switch Task
   ii. 5th character: C=**C**ost
   iii. 6th character: indicates G=**G**eneral, L=**L**ocal
   iv. 7th character indicates the condition
       N = **N**ormal
       R = **R**everse
       B = com**B**ined
   v. 8th character: A = **A**bsolute cost, R = **R**elative cost
   vi. 9th character: C = **C**orrected based on the metronome values

g) **Switch Costs: variable names**
  i. <u>General switch costs</u> compare latencies on mixed-task trials to single-task trials (mean of normal single-task and reverse single-task). Although there are several ways of calculating general switch costs, we selected this version as the most basic. We give both *absolute* and *relative* general switch costs. *Absolute costs* represent a simple difference score between the easier and more difficult condition (e.g. A – B). *Relative costs* give the proportion decline in performance from the easier to the harder condition, and thus control for differences in baseline performance (e.g. (A-B)/A).)
      1. **C3TSCGNA**: General Switch Cost (normal), absolute [mean(C3TSMXNO, C3TSMXNS) – C3TSMN]
      2. **C3TSCGNR**: General Switch Cost (normal), relative (C3TSCGNA/C3TSMN)
      3. **C3TSCGRA**: General Switch Cost (reverse), absolute [mean(C3TSMXRO, C3TSMXRS) – C3TSMR]
      4. **C3TSCGRR**: General Switch Cost (reverse), relative (C3TSCGRA/C3TSMR)
      5. **C3TSCGBA**: General Switch Cost (combined), absolute (C3TSMXBB-C3TSMB)
      6. **C3TSCGBR**: General Switch Cost (combined), relative (C3TSCGBA/C3TSMB)

  ii. <u>General switch costs</u> corrected based on the metronome values
      1. **C3TSCGNAC**: General Switch Cost (normal), absolute [mean(C3TSMXNOC, C3TSMXNSC) – C3TSMNC]
      2. **C3TSCGNRC**: General Switch Cost (normal), relative (C3TSCGNAC/C3TSMNC)
      3. **C3TSCGRAC**: General Switch Cost (reverse), absolute [mean(C3TSMXROC, C3TSMXRSC) – C3TSMRC]
      4. **C3TSCGRRC**: General Switch Cost (reverse), relative (C3TSCGRAC/C3TSMRC)
      5. **C3TSCGBAC**: General Switch Cost (combined), absolute (C3TSMXBBC-C3TSMBC)
      6. **C3TSCGBRC**: General Switch Cost (combined), relative (C3TSCGBAC/C3TSMBC)

  iii. <u>Local switch costs</u> compare mixed-task switch trials to mixed-task nonswitch trials. We give both *absolute* local switch costs and *relative* local switch costs.
      1. **C3TSCLNA**: Local Switch Cost (normal), absolute (C3TSMXNS – C3TSMXNO)
      2. **C3TSCLNR**: Local Switch Cost (normal), relative (C3TSCLNA/C3TSMXNO)

3. **C3TSCLRA**: Local Switch Cost (reverse), absolute (C3TSMXRS – C3TSMXRO)
4. **C3TSCLRR**: Local Switch Cost (reverse), relative (C3TSCLRA/C3TSMXRO)
5. **C3TSCLBA**: Local Switch Cost (combined), absolute (C3TSMXBS- C3TSMXBO)
6. **C3TSCLBR**: Local Switch Cost (combined), relative (C3TSCLBA/C3TSMXBO)

iv. <u>Local switch costs</u> corrected based on the metronome values
1. **C3TSCLNAC**: Local Switch Cost (normal), absolute (C3TSMXNSC – C3TSMXNOC)
2. **C3TSCLNRC**: Local Switch Cost (normal), relative (C3TSCLNAC/C3TSMXNOC)
3. **C3TSCLRAC**: Local Switch Cost (reverse), absolute (C3TSMXRSC – C3TSMXROC)
4. **C3TSCLRRC**: Local Switch Cost (reverse), relative (C3TSCLRAC/C3TSMXROC)
5. **C3TSCLBAC**: Local Switch Cost (combined), absolute (C3TSMXBSC- C3TSMXBOC)
6. **C3TSCLBRC**: Local Switch Cost (combined), relative (C3TSCLBAC/C3TSMXBOC)

h) **<u>Filters:</u>** We provide two levels of filters. Researchers who wish to use all valid files can choose to select the Valid filter (C3TSFV below). In our analyses we have used a criterion of 75% accuracy to ensure that participants were performing the task correctly; researchers who wish to use this approach can select cases based on the Clean filter (C3TSFC below).
   i. C3TSFV (**V**alid): filters cases that were invalid due to missing sound files, technical problems, or failure to carry out the task as instructed.
   ii. C3TSFC (**C**lean): To further insure that participants were performing the task as directed, we required a valid file with accuracy of at least 75% on all conditions (normal single-task, reverse single-task, mixed-task switch and nonswitch). In addition, to eliminate extreme latencies (i.e., outliers), we required median values of <2 sec for single-task and <4 sec for mixed-task trials.

Note: **Bold** variable names below indicate composite or total scale scores.

VARIABLE NAME	VARIABLE LABEL	VALUES
Individual Trials: Raw Scores		
C3TSWN1… C3TSWN20	SGST: normal single-task trial #1…#20	Latencies (s) 95=INCORRECT 98=REFUSED/MISSING 99=INVALID
C3TSWR1… C3TSWR20	SGST: reverse single-task trial #1…#20	Latencies (s) 95=INCORRECT 98=REFUSED/MISSING 99=INVALID
C3TSWX1… C3TSWX32	SGST: mixed-task trial #1 "normal…green"…trial #32 "green"	Latencies (s) 95=INCORRECT 98=REFUSED/MISSING 99=INVALID
Normal Single-task Trials: Composite Scores		
Composite Accuracy Scores		
C3TSTN	SGST: normal single-task #correct	0-20 98=REFUSED/MISSING
C3TSVN	SGST: normal single-task #invalid	0-20 98=REFUSED/MISSING
C3TSPN	SGST: normal single-task %correct (ratio form)	0-1.00 8=REFUSED/MISSING
Composite Latency Score		
C3TSMN	SGST: normal single-task median RT (reaction time)	Latency (s) 98=REFUSED/MISSING
C3TSMNC	SGST: normal single-task median RT (reaction time) corrected based on the metronome values	Latency (s) 98=REFUSED/MISSING
Reverse Single-task Trials: Composite Scores		
Composite Accuracy Scores		
C3TSTR	SGST: reverse single-task #correct	0-20 98=REFUSED/MISSING
C3TSVR	SGST: reverse single-task #invalid	0-20 98=REFUSED/MISSING
C3TSPR	SGST: reverse single-task %correct (ratio form)	0-1.00 8=REFUSED/MISSING
Composite Latency Score		
C3TSMR	SGST: reverse single-task median RT (reaction time)	Latency (s) 98=REFUSED/MISSING
C3TSMRC	SGST: reverse single-task median RT (reaction time) corrected based on the metronome values	Latency (s) 98=REFUSED/MISSING

Composite of Normal and Reverse Single-task

C3TSMB	SGST: mean(C3TSMN, C3TSMR)	Latency (s) 98=REFUSED/MISSING
C3TSMBC	SGST: mean(C3TSMNC, C3TSMRC)	Latency (s) 98=REFUSED/MISSING

Mixed-task Trials: Composite Accuracy Scores

Accuracy composite across normal nonswitch trials

C3TSTXNO	SGST: mixed-task normal nonswitch trials #correct	0-12 98=REFUSED/MISSING
C3TSVXNO	SGST: mixed-task normal nonswitch trials #invalid	0-12 98=REFUSED/MISSING
C3TSPXNO	SGST: mixed-task normal nonswitch trials %correct (ratio form)	0-1.00 8=REFUSED/MISSING

Accuracy composite across reverse nonswitch trials

C3TSTXRO	SGST: mixed-task reverse nonswitch trials #correct	0-11 98=REFUSED/MISSING
C3TSVXRO	SGST: mixed-task reverse nonswitch trials #invalid	0-11 98=REFUSED/MISSING
C3TSPXRO	SGST: mixed-task reverse nonswitch trials %correct (ratio form)	0-1.00 8=REFUSED/MISSING

Accuracy composites across all nonswitch trials

C3TSTXBO	SGST: mixed-task nonswitch trials #correct	0-23 98=REFUSED/MISSING
C3TSVXBO	SGST: mixed-task nonswitch trials #invalid	0-23 98=REFUSED/MISSING
C3TSPXBO	SGST: mixed-task nonswitch trials %correct (ratio form)	0-1.00 8=REFUSED/MISSING

Accuracy composite across normal switch trials

C3TSTXNS	SGST: mixed-task normal switch trials #correct	0-3 8=REFUSED/MISSING
C3TSVXNS	SGST: mixed-task normal switch trials #invalid	0-3 8=REFUSED/MISSING
C3TSPXNS	SGST: mixed-task normal switch trials %correct (ratio form)	0-1.00 8=REFUSED/MISSING

Accuracy composite across reverse switch trials

C3TSTXRS	SGST: mixed-task reverse switch trials #correct	0-3 8=REFUSED/MISSING
C3TSVXRS	SGST: mixed-task reverse switch trials #invalid	0-3 8=REFUSED/MISSING

C3TSPXRS	SGST: mixed-task reverse switch trials %correct (ratio form)	0-1.00 8=REFUSED/MISSING
Accuracy composite across all switch trials		
C3TSTXBS	SGST: mixed-task switch trials #correct	0-6 8=REFUSED/MISSING
C3TSVXBS	SGST: mixed-task switch trials #invalid	0-6 8=REFUSED/MISSING
C3TSPXBS	SGST: mixed-task switch trials %correct (ratio form)	0-1.00 8=REFUSED/MISSING
Accuracy composites across all mixed-task trials		
C3TSTXBB	SGST: all mixed-task #correct	0-29 98=REFUSED/MISSING
C3TSVXBB	SGST: all mixed-task #invalid	0-29 98=REFUSED/MISSING
C3TSPXBB	SGST: all mixed-task %correct (ratio form)	0-1.00 98=REFUSED/MISSING
Mixed-task Trials: Composite Latency Scores		
Latency composite across normal nonswitch trials		
C3TSMXNO	SGST: mixed-task normal nonswitch median RT	Latency (s) 98=REFUSED/MISSING
C3TSMXNOC	SGST: mixed-task normal nonswitch median RT corrected based on the metronome values	Latency (s) 98=REFUSED/MISSING
Latency composite across reverse nonswitch trials		
C3TSMXRO	SGST: mixed-task reverse nonswitch median RT	Latency (s) 98=REFUSED/MISSING
C3TSMXROC	SGST: mixed-task reverse nonswitch median RT corrected based on the metronome values	Latency (s) 98=REFUSED/MISSING
Latency composite across all nonswitch trials		
C3TSMXBO	SGST: mixed-task nonswitch trials median RT	Latency (s) 98=REFUSED/MISSING
C3TSMXBOC	SGST: mixed-task nonswitch trials median RT corrected based on the metronome values	Latency (s) 98=REFUSED/MISSING
Latency composite across normal switch trials		
C3TSMXNS	SGST: mixed-task normal switch median RT	Latency (s) 98=REFUSED/MISSING
C3TSMXNSC	SGST: mixed-task normal switch median RT corrected based on the metronome values	Latency (s) 98=REFUSED/MISSING
Latency composite across reverse switch trials		
C3TSMXRS	SGST: mixed-task reverse switch median RT	Latency (s) 98=REFUSED/MISSING

C3TSMXRSC	SGST: mixed-task reverse switch median RT corrected based on the metronome values	Latency (s) 98=REFUSED/MISSING

<p align="center">Latency composite across all switch trials</p>

C3TSMXBS	SGST: mixed-task switch trials median RT	Latency (s) 98=REFUSED/MISSING
C3TSMXBSC	SGST: mixed-task switch trials median RT corrected based on the metronome values	Latency (s) 98=REFUSED/MISSING

<p align="center">Latency composite across all mixed-task trials</p>

C3TSMXBB	SGST: mean(B3TSMXBO, B3TSMXBS)	Latency (s) 98=REFUSED/MISSING
C3TSMXBBC	SGST: mean(B3TSMXBOC, B3TSMXBSC)	Latency (s) 98=REFUSED/MISSING

<p align="center">Mixed-Task Trials: Switch Cost Scores</p>

C3TSCGBA	SGST: General Switch Cost, absolute (C3TSMXBB-C3TSMB)	Latency (s) 98=REFUSED/MISSING
C3TSCGBR	SGST: General Switch Cost, relative (C3TSCGBA/C3TSMB)	Latency (s) 98=REFUSED/MISSING
C3TSCGNA	SGST: General Switch Cost (normal), absolute [mean(C3TSMXNO, C3TSMXNS) – C3TSMN]	Latency (s) 98=REFUSED/MISSING
C3TSCGNR	SGST: General Switch Cost (normal), relative (C3TSCGNA/C3TSMN)	Latency (s) 98=REFUSED/MISSING
C3TSCGRA	SGST: General Switch Cost (reverse), absolute [mean(C3TSMXRO, C3TSMXRS) – C3TSMR]	Latency (s) 98=REFUSED/MISSING
C3TSCGRR	SGST: General Switch Cost (reverse), relative (C3TSCGRA/ C3TSMR)	Latency (s) 98=REFUSED/MISSING
C3TSCLBA	SGST: Local Switch Cost, absolute (C3TSMXBS-C3TSMXBO)	Latency (s) 98=REFUSED/MISSING
C3TSCLBR	SGST: Local Switch Cost, relative (C3TSCLBA/C3TSMXBO)	Latency (s) 98=REFUSED/MISSING
C3TSCLNA	SGST: Local Switch Cost (normal), absolute (C3TSMXNS-C3TSMXNO)	Latency (s) 98=REFUSED/MISSING
C3TSCLNR	SGST: Local Switch Cost, (normal), relative (C3TSCLNA/C3TSMXNO)	Latency (s) 98=REFUSED/MISSING
C3TSCLRA	SGST: Local Switch Cost (reverse), absolute (C3TSMXRS-C3TSMXRO)	Latency (s) 98=REFUSED/MISSING
C3TSCLRR	SGST: Local Switch Cost,(reverse), relative (C3TSCLRA/C3TSMXRO)	Latency (s) 98=REFUSED/MISSING
C3TSCGBAC	SGST: General Switch Cost, absolute (C3TSMXBBC-C3TSMBC)	Latency (s) 98=REFUSED/MISSING

C3TSCGBRC	SGST: General Switch Cost, relative (C3TSCGBAC/C3TSMBC)	Latency (s) 98=REFUSED/MISSING
C3TSCGNAC	SGST: General Switch Cost (normal), absolute [mean(C3TSMXNOC, C3TSMXNSC) – C3TSMNC]	Latency (s) 98=REFUSED/MISSING
C3TSCGNRC	SGST: General Switch Cost (normal), relative (C3TSCGNAC/C3TSMNC)	Latency (s) 98=REFUSED/MISSING
C3TSCGRAC	SGST: General Switch Cost (reverse), absolute [mean(C3TSMXROC, C3TSMXRSC) – C3TSMRC]	Latency (s) 98=REFUSED/MISSING
C3TSCGRRC	SGST: General Switch Cost (reverse), relative (C3TSCGRAC/ C3TSMRC)	Latency (s) 98=REFUSED/MISSING
C3TSCLBAC	SGST: Local Switch Cost, absolute (C3TSMXBSC-C3TSMXBOC)	Latency (s) 98=REFUSED/MISSING
C3TSCLBRC	SGST: Local Switch Cost, relative (C3TSCLBAC/C3TSMXBOC)	Latency (s) 98=REFUSED/MISSING
C3TSCLNAC	SGST: Local Switch Cost (normal), absolute (C3TSMXNSC-C3TSMXNOC)	Latency (s) 98=REFUSED/MISSING
C3TSCLNRC	SGST: Local Switch Cost, (normal), relative (C3TSCLNAC/C3TSMXNOC)	Latency (s) 98=REFUSED/MISSING
C3TSCLRAC	SGST: Local Switch Cost (reverse), absolute (C3TSMXRSC-C3TSMXROC)	Latency (s) 98=REFUSED/MISSING
C3TSCLRRC	SGST: Local Switch Cost,(reverse), relative (C3TSCLRAC/C3TSMXROC)	Latency (s) 98=REFUSED/MISSING

Filters and Cell Phone Adjustments

C3TSFV	SGST: Filter invalid cases (VALID)	0=NOT SELECTED 1=SELECTED
C3TSFC	SGST: Filter cases with low accuracy or extreme latencies (CLEAN)	0=NOT SELECTED 1=SELECTED
C3TSMMB	Metronome (median of 8 lags measured at the beginning of the SGST)	Latency (s) 98=REFUSED/MISSING 99=INAPP (LANDLINE PHONE) 0=PERFECT ACCURACY
C3TSMME	Metronome (median of 8 lags measured at the end of the SGST)	Latency (s) 98=REFUSED/MISSING 99=INAPP (LANDLINE PHONE) 0=PERFECT ACCURACY
C3TSMMM	Metronome (mean of medians) mean(C3TSMMB, C3TSMME)	Latency (s) 98=REFUSED/MISSING 99=INAPP (LANDLINE PHONE) 0=PERFECT ACCURACY