**Autobiographical Interview (Levine et al., 2002)**

A semi-structured interview where participants are asked to recall specific events from different life stages (i.e., childhood, teenage years, young adulthood, middle adulthood, late adulthood). Each event description is broken down into Free Recall, where no cueing is administered, General Probe, where participants are asked if they remember any additional information, and Specific Probe, where specific questions are asked to cue different episodic aspects of the event.

The scores included below only contain recollection from Free Recall and General Probe.

*Variables used :*

ai\_intdens\_avg: average of internal density scores over all memories

ai\_extdens\_avg: average of external density scores over all memories

ai\_edint\_dens: average of internal eventdensity scores over all memories

ai\_edext\_dens: average of external event density scores over all memories

ai\_plint\_dens: average of internal place density scores over all memories

ai\_plext\_dens: average of external place density scores over all memories

ai\_timeint\_dens: average of internal timedensity scores over all memories

ai\_timeext\_dens: average of external time density scores over all memories

ai\_percint\_dens: average of internal perceptualdensity scores over all memories

ai\_percext\_dens: average of external perceptual density scores over all memories

ai\_emoint\_dens : average of internal emotion/thought density scores over all memories

ai\_emoext\_dens: average of external emotion/thought density scores over all memories

ai\_sem\_dens: average of external semantic density scores over all memories

ai\_rep\_dens: average of external repetition density scores over all memories

ai\_other\_dens: average of external other density scores over all memories

**Associative Recall Paradigm (Brainerd et al., 2013)**

This measure departs from recognition-based dual-retrieval models, providing a recall-based approach. Participants are presented with pairs of words and are later asked to recall the second word based on the first.

*Variables used:*

associative\_recall: Total number of correctly recalled word pairs

**Beck Depression Inventory (Beck et al., 1996)**

The Beck Depression Inventory is a 21-question multiple choice self-report inventory measuring depression. Two questions were not included in our administration of the survey:

Question 9:

0 I don't have any thoughts of killing myself.

1 I have thoughts of killing myself, but I would not carry them out.

2 I would like to kill myself.

3 I would kill myself if I had the chance.

Question 10:

0 I don't cry any more than usual.

1 I cry more now than I used to.

2 I cry all the time now.

3 I used to be able to cry, but now I can't cry even though I want to.

The median of participants’ other answers were used to replace these two questions to maintain the scoring system.

*Variables used:*

bdi\_sum: Total sum of Beck Depression Inventory questions

**Behavioral Inhibition/Activation Scale (Carver & White, 1994)**

The BIS/BAS is a self-report measure of dispositional sensitivities to proposed behavioral inhibition and activating systems. Participants respond with a four-point Likert scale to indicate agreement to 24 statements.

*Variables used:*

bisbas\_drive: Drive

bisbas\_funseeking: Funseeking

bisbas\_reward: Reward Responsiveness

bisbas\_bis: Inhibition

**Big Five Aspects Scale (De Young et al., 2007)**

The Big Five Aspects scale is used to measure five personality dimensions – Extraversion, Neuroticism, Conscientiousness, Agreeableness and Openness to Experience – by asking participants to identify with certain traits on a five-point Likert scale that pertain to those dimensions. Aspects of each dimension can also be measured with this scale.

Rating options varied from 0-5 when the literature ratings range from 1-5. All participant entries of 0 were converted to 1s.

In an early version of the survey a non-response appeared to be an answer of “1” to participants. Thus, all missing responses were changed to 1s.

*Variables used:*

bfas\_openness: Openness/Intellect trait

bfas\_conscientiousness: Conscientiousness trait

bfas\_extraversion: Extraversion trait

bfas\_agreeableness: Agreeableness trait

bfas\_neuroticism: Neuroticism trait

bfas\_withdrawal: Withdrawal facet

bfas\_volatility: Volatility facet

bfas\_compassion: Compassion facet

bfas\_politeness: Politeness facet

bfas\_industriousness: Industriousness facet

bfas\_orderliness: Orderliness facet

bfas\_enthusiasm: Enthusiasm facet

bfas\_assertiveness: Assertiveness facet

bfas\_intellect: Intellect facet

bfas\_openness\_facet: Openness facet

**Geriatric Depression Scale (Yesavage et al., 1982)**

The Geriatric Depression Scale is a 30-item self-report assessment used to identify depression in the elderly. All questions are answered ‘yes’ or ‘no.’

*Variables used:*

gds\_sum: Geriatric Depression Scale total sum score

**Interpersonal Reactivity Index (Davis, 1983)**

The Interpersonal Reactivity Index is a measure of dispositional empathy containing four seven-item subscales (perspective taking, fantasy, empathic concern, and perceived distress), each tapping a separate facet of empathy. Participants respond with a five-point Likert scale as to how well they think the item describes them.

*Variables used:*

iri\_perspectivetaking: Perspective Taking

iri\_fantasy: Fantasy

iri\_empathicconcern: Empathic Concern

iri\_personaldistress: Personal Distress

**Mini Mental State Examination (Folstein et al., 1975)**

The Mini Mental State Examination is an instrument used to assess cognitive impairment or dementia by testing participants on multiple domains such as orientation (ensuring they know the date, the current season and where they are) and registration (the ability to repeat a small series of simple words), among others.

For some participants (N=21), this measure was administrated incorrectly resulting in a range of possible true scores. In this case, the highest possible score was taken.

*Variables used:*

mmse: Mini Mental State Exam total score

**NIH Toolbox: Cognition (Gershon et al., 2013)**

The cognition toolbox yields individual measure scores as well as composite scores. Specific measures are described below and full detailed information on the development of the toolbox may be found here: http://www.nihtoolbox.org

Unadjusted scores were used unless otherwise noted.

**Auditory Verbal Learning Test (REY)**

The REY is a measure of immediate recall in which the participant is aurally presented with a list of 15 unrelated words and is asked to recall as many as he/she can. This process is repeated twice more, and the score is equal to the total number of words recalled across all three trials. Approximately 20 minutes after initial testing this procedure was administered once more and the number of incorrect responses was subtracted from the number of correct responses at this time point.

*Variables included:*

nihcog\_rey: Immediate recall unadjusted score

**Dimensional Change Card Sort Test**

The Dimensional Change Card Sort Test is a measure of cognitive flexibility. Two target pictures are presented that vary along two dimensions (e.g., shape and color). Participants are asked to match a series of bivalent test pictures (e.g., yellow balls and blue trucks) to the target pictures, first according to one dimension (e.g., color) and then, after a number of trials, according to the other dimension (e.g., shape). “Switch” trials are also employed, in which the participant must change the dimension being matched. For example, after 4 straight trials matching on shape, the participant may be asked to match on color on the next trial and then go back to shape, thus requiring the cognitive flexibility to quickly choose the correct stimulus. Scoring is based on a combination of accuracy and reaction time.

*Variables used:*

nihcog\_dccs: Dimensional Card Change Sort Task unadjusted score

**Flanker Inhibitory Control and Attention Test**

The Flanker task measures both a participant’s attention and inhibitory control. The test requires the participant to focus on a given stimulus while inhibiting attention to stimuli flanking it. Sometimes the middle stimulus is pointing in the same direction as the “flankers” (congruent) and sometimes in the opposite direction (incongruent). Scoring is based on a combination of accuracy and reaction time.

*Variables used:*

nihcog\_flanker: Flanker Inhibitory Control Task unadjusted score

**Fluid Cognition Composite**

Includes DCCS, Flanker, Picture Sequence Memory, List Sorting Working Memory, and Pattern Comparison measures.

*Variables used:*

nihcog\_fluidcomp: Fluid cognition composite score: national percentile (for inclusion criteria only)

**List Sorting Working Memory Test**

This task assesses working memory and requires the participant to sequence different visually- and orally-presented stimuli. Pictures of different foods and animals are displayed with both a sound clip and written text that name the item. The task has two different conditions: 1-List and 2-List. In the 1-List condition, participants are required to order a series of objects (either food or animals) in size order from smallest to largest. In the 2-List condition, participants are presented both food and animals and are asked to report the food in size order, followed by the animals in size order.

*Variables used:*

nihcog\_lswm: List Sorting Working Memory Task unadjusted score

**Oral Reading Recognition Test**

The participant is asked to read and pronounce letters and words as accurately as possible. The test administrator scores them as right or wrong. For the youngest children, the initial items require them to identify letters (as opposed to symbols) and to identify a specific letter in an array of 4 symbols. The test is given via a computerized adaptive format.

*Variables used:*

nihcog\_orr: Oral Reading Recognition unadjusted score

**Picture Sequence Memory Test**

The Picture Sequence Memory Test is a measure developed for the assessment of episodic memory. It involves recalling increasingly lengthy series of illustrated objects and activities that are presented in a particular order on the computer screen. The participants are asked to recall the sequence of pictures that is demonstrated over two learning trials; sequence length varies from 6-18 pictures, depending on age. Participants are given credit for each adjacent pair of pictures (i.e., if pictures in locations 7 and 8 and placed in that order and adjacent to each other anywhere – such as slots 1 and 2 – one point is awarded) they correctly place, up to the maximum value for the sequence, which is one less than the sequence length (if there are 18 pictures in the sequence, the maximum score is 17, because that is the number of adjacent pairs of pictures that exist).

*Variables used:*

nihcog\_psm: Picture Sequence Memory unadjusted score

**Picture Vocabulary Test**

This measure of receptive vocabulary is administered in a computerized adaptive format. The respondent is presented with an audio recording of a word and four photographic images on the computer screen and is asked to select the picture that most closely matches the meaning of the word.

*Variables used:*

nihcog\_pva: Picture Vocabulary unadjusted score

**NIH Toolbox: Emotion (Gershon et al., 2013)**

The emotion toolbox contains several self-report instruments designed to assess life satisfaction and general affect. Specific measures are described below and full detailed information on the development of the toolbox may be found here: http://www.nihtoolbox.org

T-scores were used unless otherwise noted.

**Anger: Affect, Physical Aggression, and Hostility Survey**

Anger is a concept within the Negative Affect subdomain of Emotion. Anger is characterized by attitudes of hostility and cynicism and is often associated with experiences of frustration impeding goal-directed behavior. Anger is comprised of three components: anger as an emotion, aggression as a behavioral component, and hostility as a set of cynical attitudes and mistrust of others and their motives. The Anger-Affect Survey is a computerized adaptive test comprised of items from the PROMIS Anger Item Bank. It assesses anger as an emotion.

*Variables used:*

nihemo\_angeraffect\_tscore: NIH Emotion Anger-Affect TScore

nihemo\_angerphysaggression\_tscore: NIH Emotion Physical Aggression TScore

nihemo\_angerhostility\_tscore: NIH Emotion Anger Hostility TScore

**Emotional Support Survey**

Social Support is a concept within the Social Relationships subdomain of Emotion. Perceived social support is the extent to which an individual views his/her social relationships as available to provide aid in times of need or when problems arise. This includes instrumental and emotional/informational types of perceived social support. Emotional Support refers to the perception that people in one’s social network are available to listen to one’s problems with empathy, caring and understanding, and Informational Support refers to the perception that people in one’s social network are available to provide information or advice needed to solve problems that arise. This self- report measure is an 8-item calibrated scale.

*Variables used:*

nihemo\_emosupport\_tscore: NIH Emotion Emotional Support TScore

**Fear: Affect and Somatic Arousal Survey**

Fear is a concept within the Negative Affect subdomain of Emotion. Fear is best characterized by symptoms of anxiety that reflect autonomic arousal and perceptions of threat. The Fear-Affect Survey is a computerized adaptive test comprised of items from the PROMIS Anxiety Item Bank. It assesses self-reported fear and anxious misery. The Fear-Somatic Arousal Survey is a 6-item calibrated scale comprised of items from the Mood and Anxiety Symptom Questionnaire. It assesses somatic symptoms related to arousal.

*Variables used:*

nihemo\_fearaffect\_tscore: NIH Emotion Fear-Affect TScore

nihemo\_fearsomarousal\_tscore: NIH Emotion Fear-Somatic Arousal TScore

**Friendship and Loneliness Surveys**

Companionship is a concept within the Social Relationships subdomain of Emotion. Companionship is characterized by self-reported perceptions of the availability of friends or companions with whom to interact or affiliate (i.e., friendship) and that one is alone, lonely or socially isolated from others (i.e., loneliness). The Friendship Survey is a self-report measure comprised of 5 calibrated items. The Loneliness Survey is a self-report measure comprised of 5 items.

*Variables used:*

nihemo\_friendship\_tscore: NIH Emotion Friendship TScore

nihemo\_loneliness\_tscore: NIH Emotion Loneliness TScore

**General Life Satisfaction Survey**

Life Satisfaction is a concept within the Psychological Well-Being subdomain of Emotion. Life Satisfaction is one’s cognitive evaluation of life experiences and is concerned with whether people like their lives or not. Life satisfaction includes both general (e.g., my life is going well) and domain-specific (e.g., I am satisfied with my family life) aspects. This self-report measure is a 10-item calibrated scale comprised of items from the Satisfaction with Life Scale and the Students' Life Satisfaction Scale. It assesses global feelings and attitudes about one's life.

*Variables used:*

nihemo\_gls\_tscore: NIH Emotion General Life Satisfaction TScore

**Instrumental Support Survey**

Social Support is a concept within the Social Relationships subdomain of Emotion. Perceived social support is the extent to which an individual views his/her social relationships as available to provide aid in times of need or when problems arise. This includes instrumental and emotional/informational types of perceived social support. Instrumental Support refers to the perception that people in one’s social network are available to provide material or functional aid in completing daily tasks (such as making meals or providing transportation) if needed. This self-report measure is an 8-item calibrated scale.

*Variables used:*

nihemo\_instrumentalsupport\_tscore: NIH Emotion Instrumental Support TScore

**Meaning & Purpose Survey**

Meaning and Purpose is a concept within the Psychological Well-Being subdomain of Emotion. Meaning and Purpose is characterized by the extent to which people feel their life matters or makes sense. This self-report measure is a computerized adaptive test comprised of items from the Meaning in Life Questionnaire, the Life Engagement Test, the MHI, and the FACIT-Sp.

*Variables used:*

nihemo\_meaningpurpose\_tscore: NIH Emotion Meaning and Purpose TScore

**Perceived Hostility and Rejection Surveys**

Social Distress is a concept within the Social Relationships subdomain of Emotion. Social distress is the extent to which an individual perceives his/her daily social interactions as negative or distressing. This can include aspects of perceived hostility (e.g., how often people argue with me, yell at me, or criticize me) and perceived insensitivity (e.g., how often people don’t listen when I ask for help, or don’t pay attention to me). The Perceived Hostility Survey is a self-report measure comprised of 8 calibrated items. The Perceived Rejection Survey is a self-report measure for adults (ages 18 and above) comprised of 8 calibrated items.

*Variables used:*

nihemo\_perceivedhostility\_tscore: NIH Emotion Perceived Hostility TScore

nihemo\_perceivedrejection\_tscore: NIH Emotion Perceived Rejection TScore

**Perceived Stress Survey**

Perceived Stress is a concept within the Stress & Self-Efficacy subdomain of Emotion. Perceived Stress is defined by individual perceptions about the nature of events and their relationship to the values and coping resources of an individual. This self-report measure is a computerized adaptive test comprised of items from the Perceived Stress Scale-10. . It assesses how unpredictable, uncontrollable, and overloading respondents find their lives.

*Variables used:*

nihemo\_perceivedstress\_tscore: NIH Emotion Perceived Stress TScore

**Positive Affect Survey**

Positive Affect is a concept within the Psychological Well-Being subdomain of Emotion. Positive Affect can be described as feelings that reflect a level of pleasurable engagement with the environment such as happiness, joy, excitement, enthusiasm, and contentment. This self-report measure is a computerized adaptive test comprised of items from the Positive and Negative Affect Schedule-Expanded Form (PANAS-X), Affectometer-2, Brief Mood Introspection Scale (BMIS), Functional Assessment of Chronic Illness Therapy - Spiritual Well-Being (FACIT-Sp), and Mental Health Inventory (MHI). It assesses both activated (i.e., happiness, joy) as well as unactivated (i.e., serenity, peace) aspects of positive affect.

*Variables used:*

nihemo\_positiveaffect\_tscore: NIH Emotion Positive Affect TScore

**Sadness Survey**

Sadness is a concept within the Negative Affect subdomain of Emotion. Sadness is distinguished by low levels of positive affect and comprised of symptoms that are primarily affective (poor mood) and cognitive (negative perceptions of self, the world, and the future) indicators of depression. The Sadness Survey is a computerized adaptive test comprised of items from the PROMIS Depression Item Bank.

*Variables used:*

nihemo\_sadness\_tscore: NIH Emotion Sadness TScore

**Self-Efficacy Survey**

Self-Efficacy is a concept within the Stress & Self-Efficacy subdomain of Emotion. Self- Efficacy can be described as a person’s belief in their capacity to manage their functioning and have control over meaningful events. This self-report measure is a computerized adaptive test comprised of items modified from the General Self- Efficacy Scale (Schwarzer). It assesses respondents' sense of global self-efficacy.

*Variables used:*

nihemo\_selfefficacy\_tscore: NIH Emotion Self-Efficacy TScore

**Shipley-2 (Shipley et al., 2009)**

The Shipley-2 is an instrument that is used to assess cognitive functioning and impairment by measuring two domains of intelligence: crystallized intelligence (information gained through experience) and fluid intelligence (the ability to learn and problem solve). Cognitive impairment can be inferred from the Shipley-2 through discrepancies between crystalized and fluid intelligence. Shipley-Vocabulary is used to measure crystallized intelligence through a vocabulary test, Shipley-Blocks to measure fluid intelligence through rotation of block patterns.

Of note, on Shipley-Blocks many participants did not adhere to verbally spoken and written instructions and made marks on the paper to help them solve the problems. As this makes the task much easier, these participants' scores were excluded.

*Variables used:*

shipley\_vocab: Total number of correct synonyms identified out of 40 questions

**Symbol Digits Modality Task (Smith, 1982)**

The Symbol Digits Modality Task is a measure of processing speed. Participants are asked to indicate which symbol matches a specific digit according to a legend provided. Participants must complete as many as possible within 90 seconds. This occurs in 2 phases: in the first phase they write their answers down and in the second they say them out loud.

*Variables used:*

sdmt\_oral: total number of correctly decoded symbols for Symbol Digits Modality writing portion

**Trails Making Task (Reitan, 1958)**

The Trail Making tests are used to measure components of attention and executive functioning through time of completion. The difference between test B and test A can be used to ascertain cognitive flexibility.

Trail Making Test A: Connect the numbers from lowest to highest as quickly and as accurately as you can, without lifting your pen/pencil off the paper.

Trail Making Test B: Alternate between connecting the numbers and letters from lowest to highest and in alphabetical order as quickly and as accurately as possible, without lifting your pencil/pen from the paper.

Scores are in centiseconds.

*Variables used:*

trails\_b.a: Trail Making Test B score minus Trail Making Test A score

**Verbal Paired Association (Wechsler, 2009)**

Paired association - a subtest from the larger Wechsler Memory Scale-IV (WMS-IV) – is a measurement used to assess memory in individuals by asking them to recall word pairs through various methods (recognition and cued recall, for instance).

*Variables Used:*

vpa\_imm\_tot: Verbal Paired Associates tests 1, 2, 3, and 4 total correct: correctly identified second word of the pair conducted immediately after presentation of word pairs

vpa\_delay: Verbal Paired Associates delayed total score. Number of correctly identified second words from each pair after a 20-minute delay

vpa\_fr\_delay: Verbal Paired Associates words correctly recalled after a 20-minute delay. Words did not have to be remembered in original word pairs. Hits-False Alarms.

**Other variables**

**episodic\_index:** composite score of Verbal Paired Associates, Associative Recall, NIH Cognition Auditory Verbal Learning (REY), and NIH Cognition Picture Sequence Memory variables

**semantic index:** composite score of Shipley Vocabulary, NIH Cognition Picture Vocabulary, and NIH Cognition Oral Reading Recognition variables

**executive index:** composite score of Trail Making Task, NIH Cognition Flanker, NIH Cognition Dimensional Change Card Sort, and NIH Cognition List Sort Working Memory variables

**id:** Participant identification number

**gender:** Self-reported participant gender. M=Male F=Female

**site:** location of data collection; 1= Cornell University 2= York University

**agegroup:** Y=younger adults; O=olderadults

**race:** Self-reported race. “Not provided” = chose not to answer

**ethnicity:** Self-reported ethnicity. “Not provided” = chose not to answer

**age:** Self-reported age in years

**education:** Self-reported education in years starting with grade 1 (12=completed through grade 12).

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