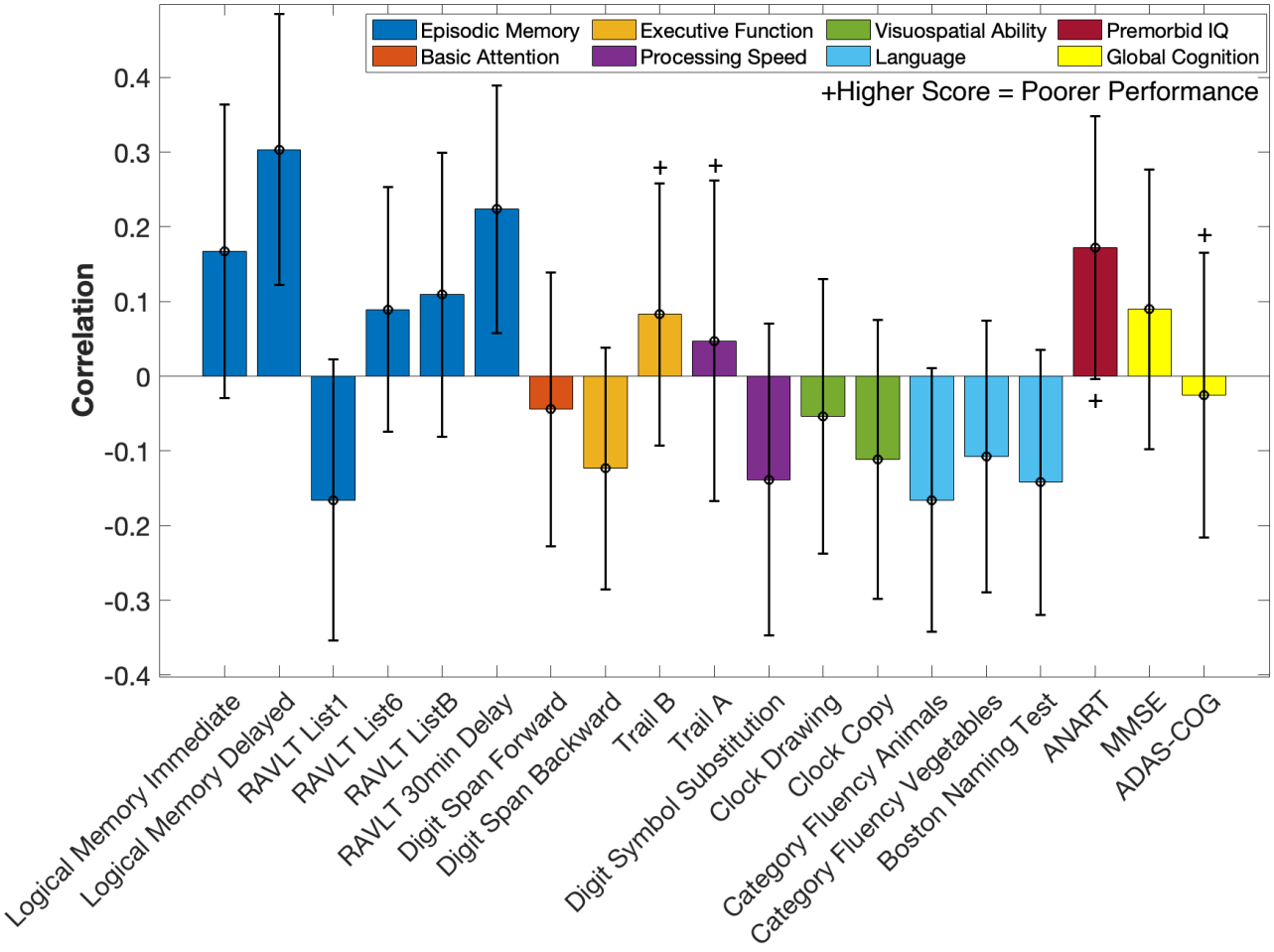
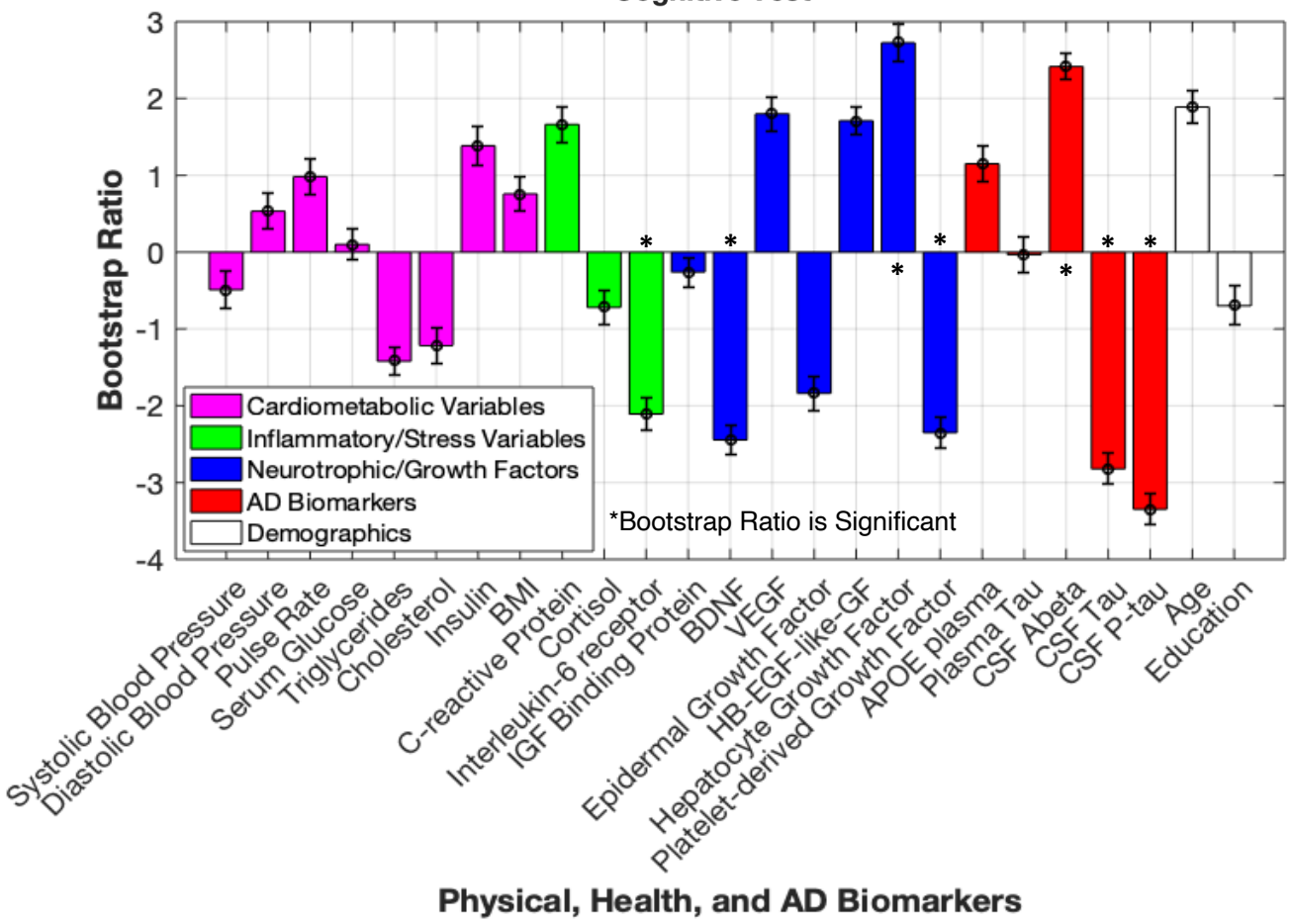
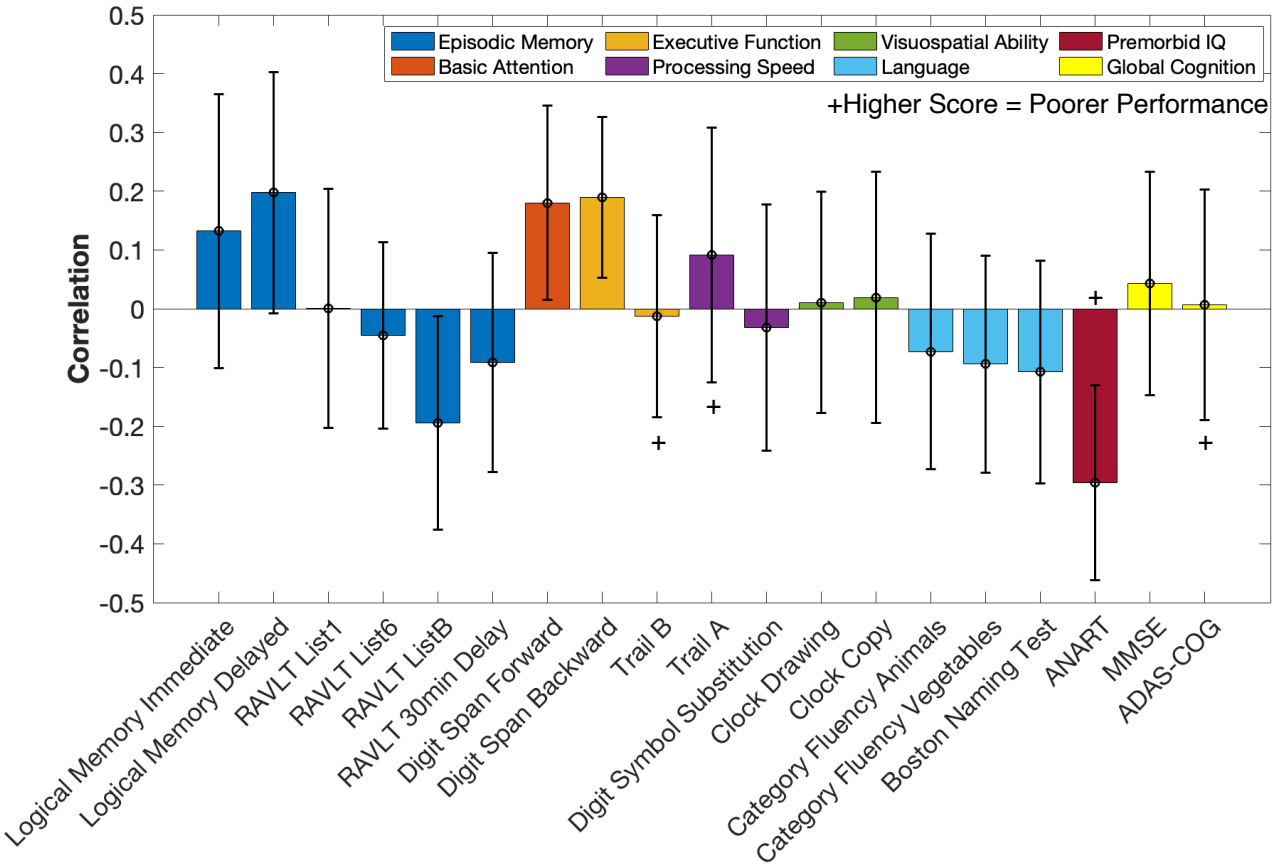

Episodic Memory
Executive Function
Visuospatial Ability
Premorbid IQ
Basic Attention
Processing Speed
Language
Global Cognition
+Higher Score = Poorer Performance
Correlation
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
Logical Memory Immediate
Logical Memory Delayed
RAVLT List1
RAVLT List6
RAVLT ListB
RAVLT 30min Delay
Digit Span Forward
Digit Span Backward
Trail B
Trail A
Digit Symbol Substitution
Clock Drawing
Clock Copy
Category Fluency Animals
Category Fluency Vegetables
Boston Naming Test
ANART
MMSE
ADAS-COG
Cognitive Test


Bootstrap Ratio
3
2
1
0
-1
-2
-3
-4
Cardiometabolic Variables
Inflammatory/Stress Variables
Neurotrophic/Growth Factors
AD Biomarkers
Demographics
*Bootstrap Ratio is Significant
Systolic Blood Pressure
Diastolic Blood Pressure
Pulse Rate
Serum Glucose
Triglycerides
Cholesterol
Insulin
BMI
C-reactive Protein
Cortisol
Interleukin-6 receptor
IGF Binding Protein
BDNF
VEGF
Epidermal Growth Factor
HB-EGF-like-GF
Hepatocyte Growth Factor
Platelet-derived Growth Factor
APOE plasma
Plasma Tau
CSF Abeta
CSF Tau
CSF P-tau
Age
Education
Physical, Health, and AD Biomarkers

**Supplemental Figure 1. Correlation profile and bootstrap ratios for Latent Variable 2. A.** The correlation between each cognitive test variable to the identified physical, health, and AD variables listed in panel B. Significant variables have 95% confidence intervals (error bars) that do not cross the x-axis (0). **B.** Each Physical, Health, and AD Variable's contribution to LV2 represented by their bootstrap ratios, indicating directionality with significant cognitive tests represented in A (for instance, performance on logical memory delayed was positively correlated with CSF $A\beta_{1-42}$, and had a negative correlation with CSF tau). Error bars represent 95% confidence intervals. Variables with bootstrap ratios > |1.96| (equivalent to a p-value of < 0.05) are considered significant contributors to the LV and are indicated by *. (**KEY PANEL A:** ADAS-COG = Alzheimer's Disease Assessment Scale, Cognitive Subsection; ANART = American National Adult Reading Test; MMSE = Mini Mental State Examination; RAVLT = Rey Auditory Verbal Learning Test; **KEY PANEL B:** APOE = apolipoprotein E; BDNF = brain-derived neurotrophic factor; BMI = body mass index; CSF = cerebrospinal fluid; HB-EGF-like-GF = heparin-binding epidermal growth factor-like growth factor; IGF = insulin-like growth factor; P-tau = phospho-tau 181; VEGF = vascular endothelial growth factor).


Episodic Memory
Executive Function
Visuospatial Ability
Premorbid IQ
Basic Attention
Processing Speed
Language
Global Cognition
+Higher Score = Poorer Performance
Correlation
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
Logical Memory Immediate
Logical Memory Delayed
RAVLT List1
RAVLT List6
RAVLT ListB
RAVLT 30min Delay
Digit Span Forward
Digit Span Backward
Trail B
Trail A
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Category Fluency Animals
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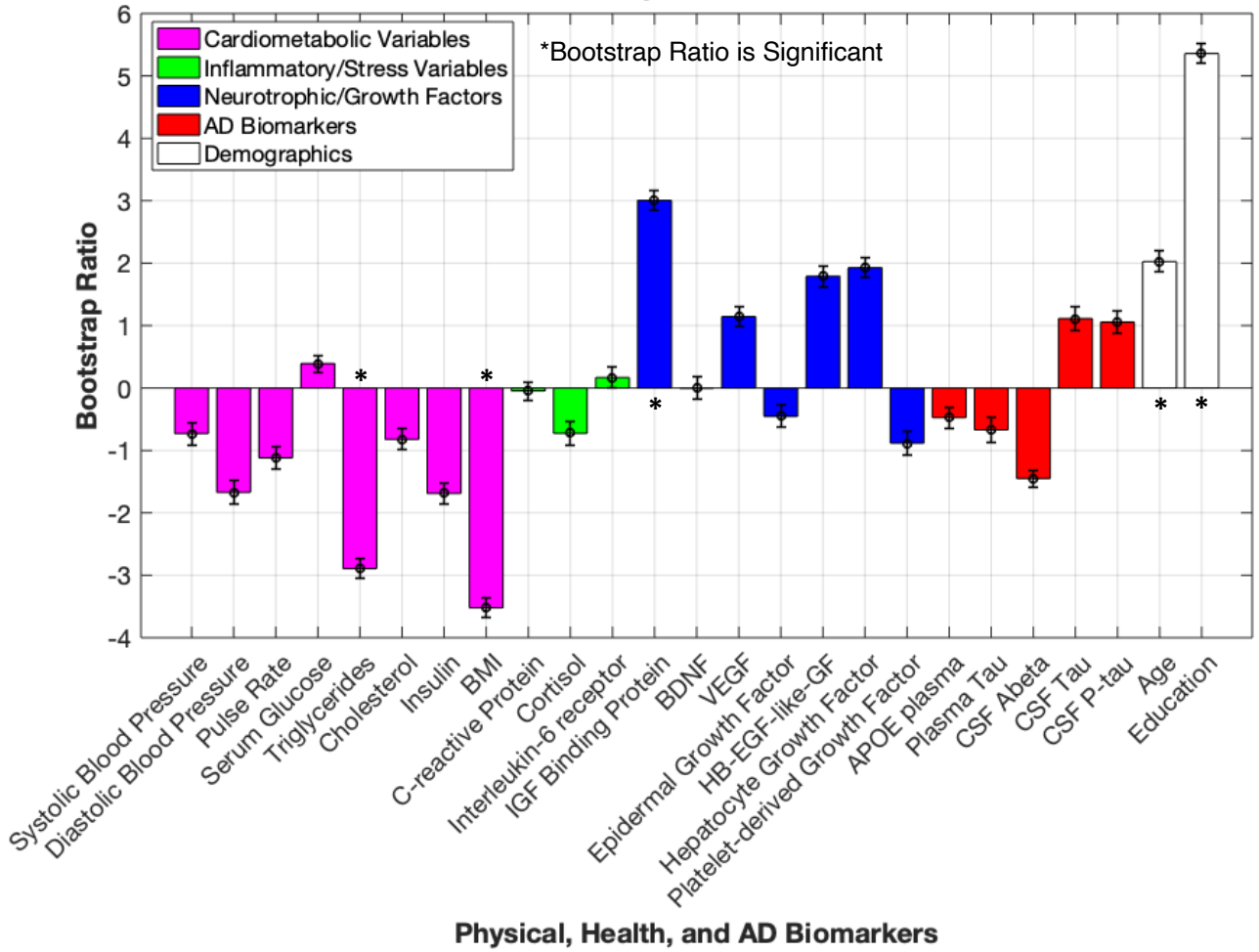
Cardiometabolic Variables
Inflammatory/Stress Variables
Neurotrophic/Growth Factors
AD Biomarkers
Demographics
*Bootstrap Ratio is Significant
Bootstrap Ratio
6
5
4
3
2
1
0
-1
-2
-3
-4
Systolic Blood Pressure
Diastolic Blood Pressure
Pulse Rate
Serum Glucose
Triglycerides
Cholesterol
Insulin
BMI
C-reactive Protein
Cortisol
Interleukin-6 receptor
IGF Binding Protein
BDNF
VEGF
Epidermal Growth Factor
HB-EGF-like-GF
Hepatocyte Growth Factor
Platelet-derived Growth Factor
APOE plasma
Plasma Tau
CSF Abeta
CSF Tau
CSF P-tau
Age
Education
Physical, Health, and AD Biomarkers

**Supplemental Figure 2. Correlation profile and bootstrap ratios for Latent Variable 3. A.** The correlation between each cognitive test variable to the identified physical, health, and AD variables listed in panel B. Significant variables have 95% confidence intervals (error bars) that do not cross the x-axis (0). **B.** Each Physical, Health, and AD Variable's contribution to LV3 represented by their bootstrap ratios, indicating directionality with significant cognitive tests represented in A (for instance, performance on digit span backward was positively correlated with education, and had a negative correlation with BMI). Error bars represent 95% confidence intervals. Variables with bootstrap ratios > |1.96| (equivalent to a p-value of < 0.05) are considered significant contributors to the LV and are indicated by *. (**KEY PANEL A:** ADAS-COG = Alzheimer's disease Assessment Scale, Cognitive Subsection; ANART = American National Adult Reading Test; MMSE = Mini Mental State Examination; RAVLT = Rey Auditory Verbal Learning Test; **KEY PANEL B:** APOE = apolipoprotein E; BDNF = brain-derived neurotrophic factor; BMI = body mass index; CSF = cerebrospinal fluid; HB-EGF-like-GF = heparin-binding epidermal growth factor-like growth factor; IGF = insulin-like growth factor; P-tau = phospho-tau 181; VEGF = vascular endothelial growth factor).