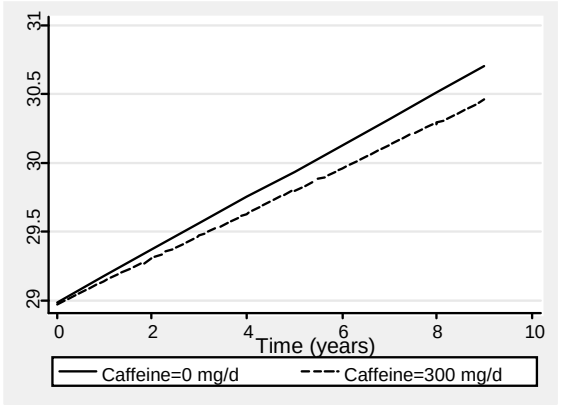
Supplemental Figures 2A-2J

Predicted trajectories of cognitive performance by levels of dietary exposure, stratifying by baseline age (50y vs. 70y): hypothetical population with fixed covariates: Interval model

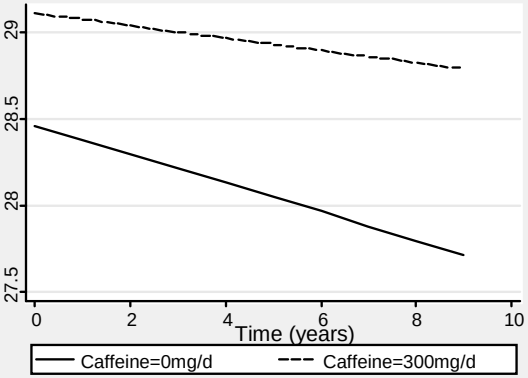
2A. MMSE, total score

Baseline age=50y

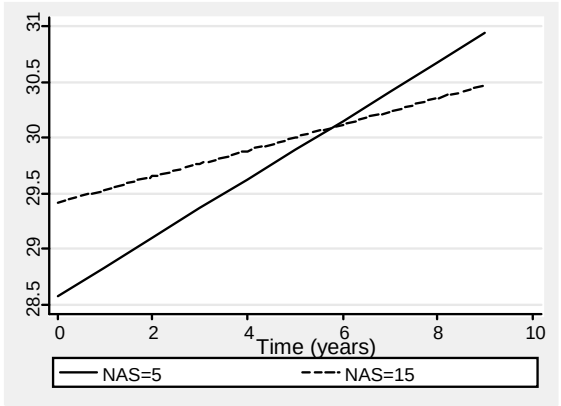


γ_{00}>0; p<0.001
γ_{10}>0; p=0.097
Age>0; p=0.98
Age×Time<0; p=0.087
γ_{01}<0; p=0.92
γ_{11}<0; p=0.38

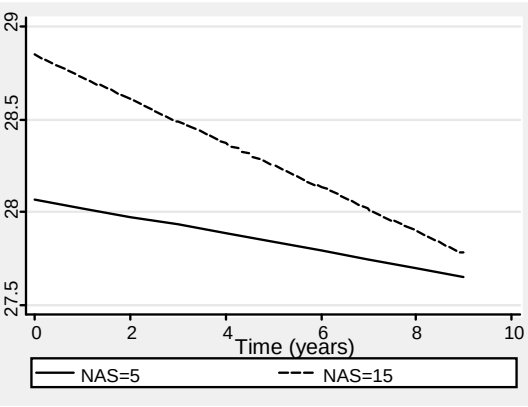
Baseline age=70y



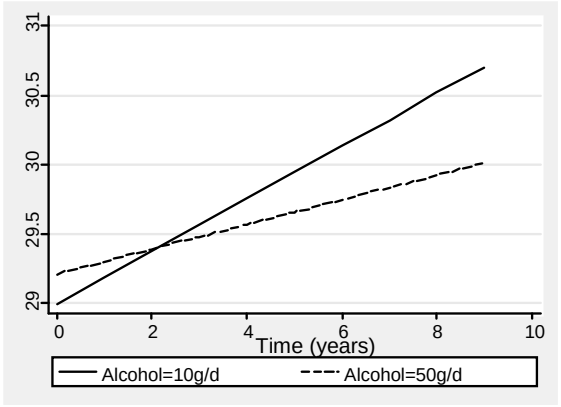
γ_{00}>0; p<0.001
γ_{10}>0; p=0.89
Age<0; p=0.001
Age×Time<0; p=0.53
γ_{01}>0; p=0.008
γ_{11}>0; p=0.700



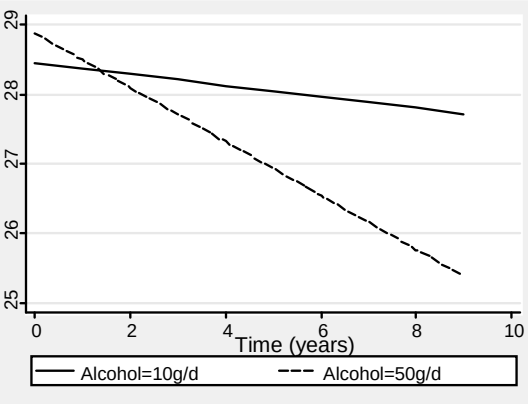
γ_{02}>0; p=0.002
γ_{12}<0; p=0.017



γ_{02}>0; p=0.055
γ_{12}<0; p=0.72



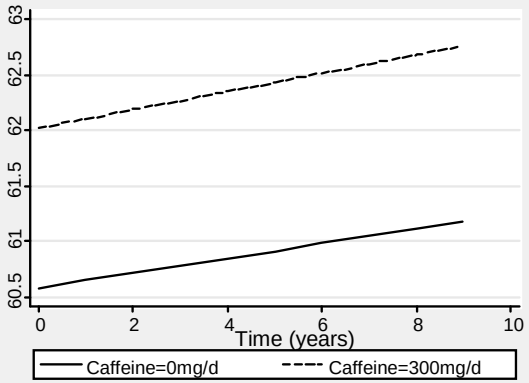
γ_{03}>0; p=0.32
γ_{13}<0; p=0.008



γ_{03}>0; p=0.29
γ_{13}<0; p=0.14

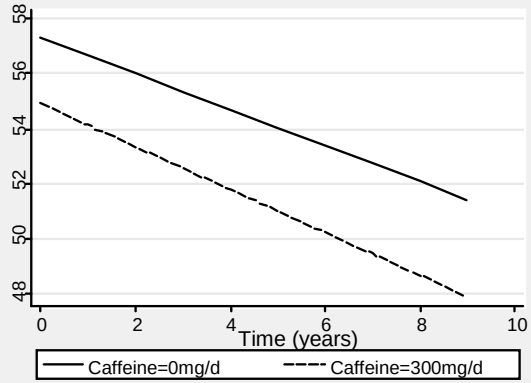
2B. CVLT, List A, Immediate free recall, total score

Baseline age=50y

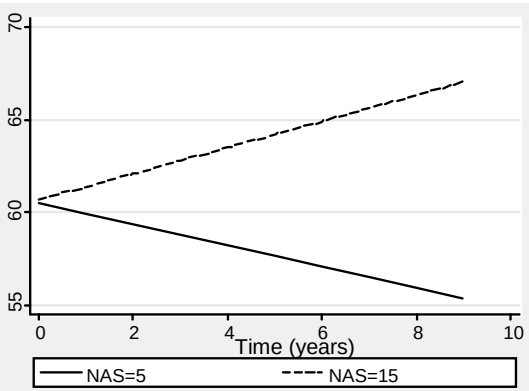


γ_{00}>0; p<0.001
γ_{10}>0; p=0.70
Age<0; p<0.001
Age×Time<0; p=0.63
γ_{01}>0; p=0.14
γ_{11}>0; p=0.94

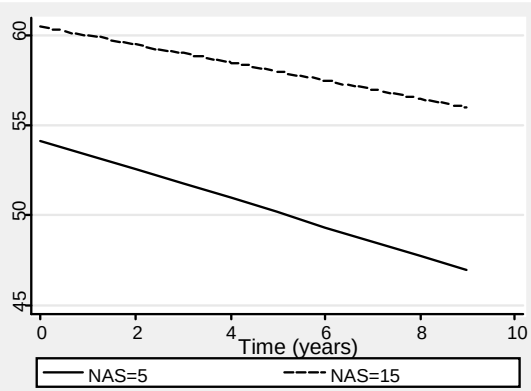
Baseline age=70y



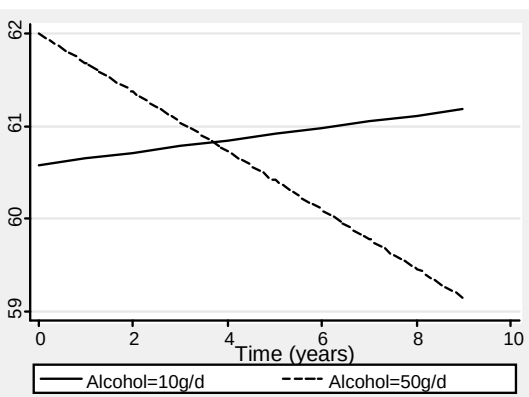
γ_{00}>0; p<0.001
γ_{10}<0; p=0.53
Age<0; p<0.001
Age×Time>0; p=0.85
γ_{01}>0; p=0.14
γ_{11}>0; p=0.94



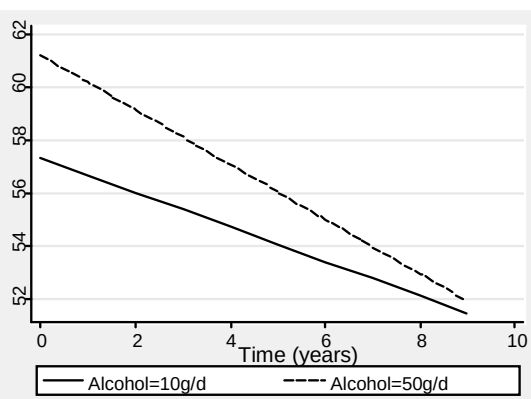
γ_{02}>0; p=0.92
γ_{12}>0; p=0.019



γ_{02}>0; p=0.015
γ_{12}>0; p=0.65



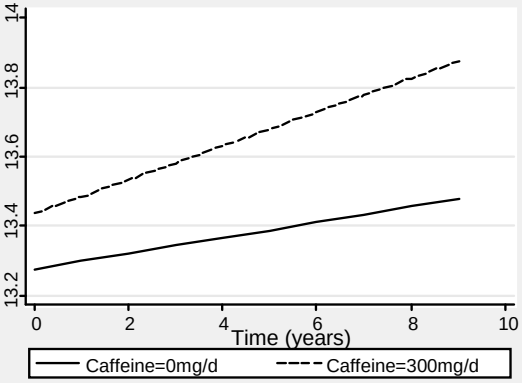
γ_{03}>0; p=0.31
γ_{13}<0; p=0.22



γ_{03}>0; p=0.11
γ_{13}<0; p=0.56

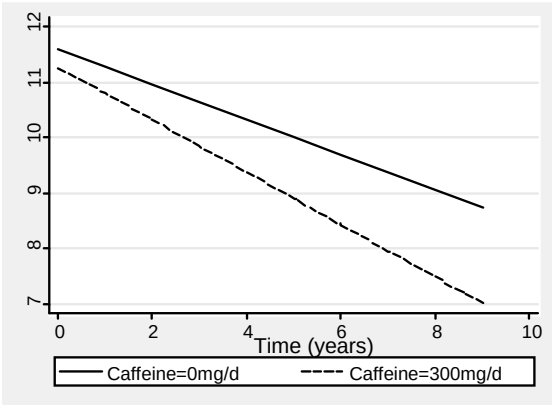
2C. CVLT, delayed free recall, total score

Baseline age=50y

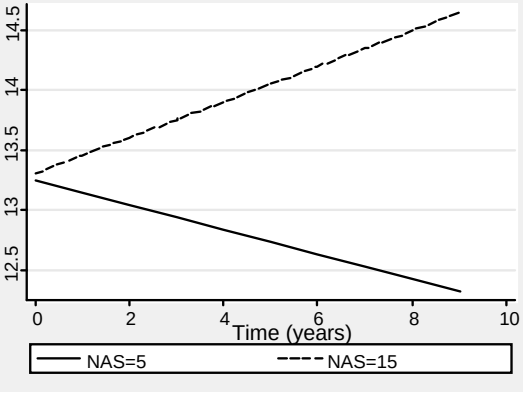


γ_{00}>0; p<0.001
γ_{10}>0; p=0.68
Age<0; p<0.011
Age×Time<0; p=0.52
γ_{01}>0; p=0.58
γ_{11}>0; p=0.66

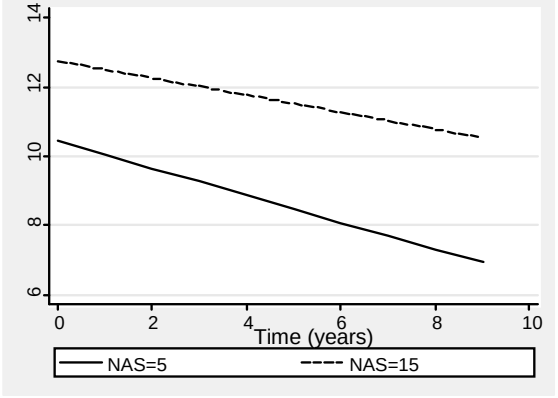
Baseline age=70y



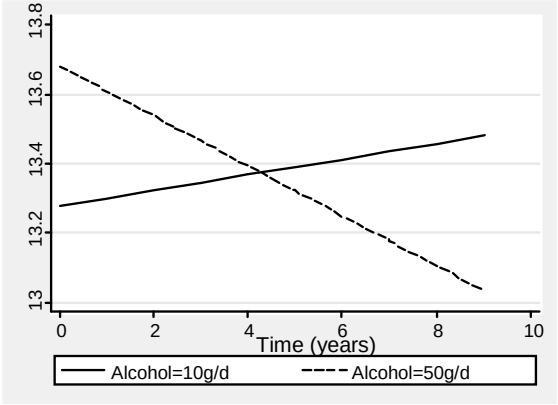
γ_{00}>0; p<0.001
γ_{10}<0; p=0.29
Age<0; p<0.001
Age×Time>0; p=0.90
γ_{01}<0; p=0.49
γ_{11}<0; p=0.25



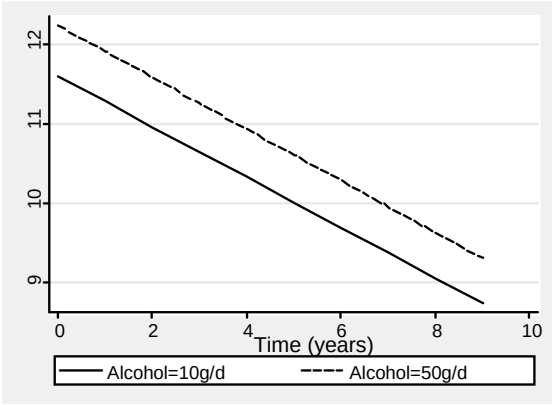
γ_{02}>0; p=0.92
γ_{12}>0; p=0.077



γ_{02}>0; p=0.006
γ_{12}>0; p=0.49



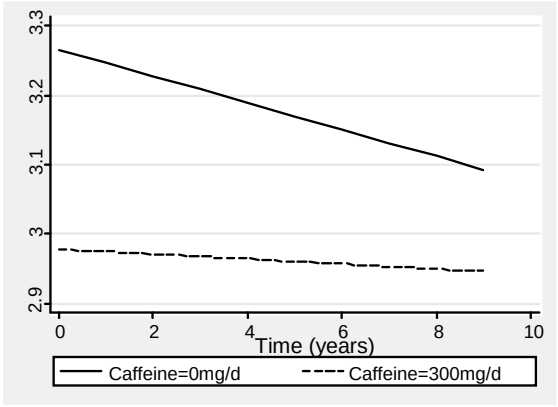
γ_{03}>0; p=0.34
γ_{13}<0; p=0.24



γ_{03}>0; p=0.41
γ_{13}<0; p=0.97

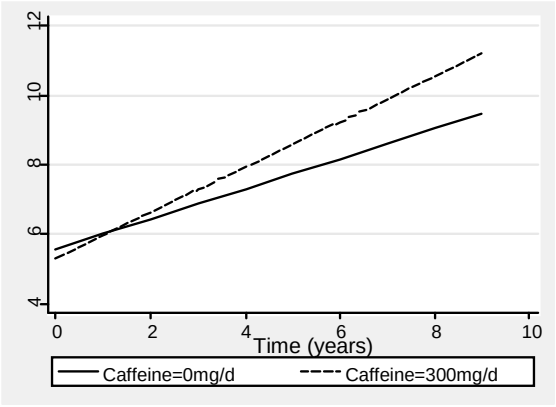
2D. BVRT, total errors

Baseline age=50y

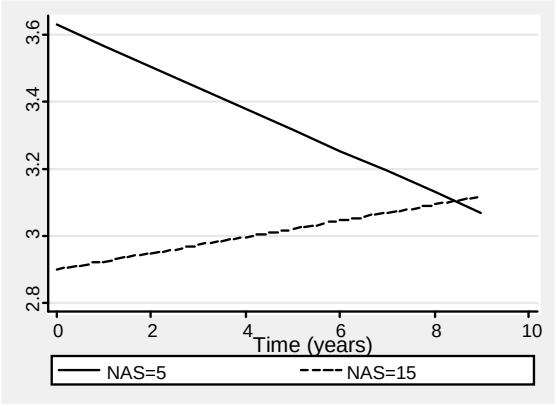


γ_{00}>0; p<0.001
γ_{10}>0; p=0.96
Age>0; p<0.011
Age×Time>0; p<0.001
γ_{01}<0; p=0.18
γ_{11}>0; p=0.28

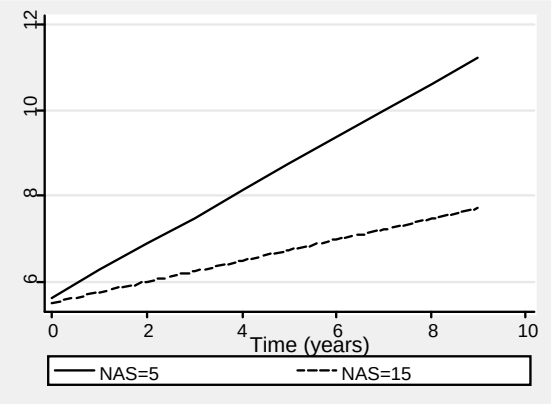
Baseline age=70y



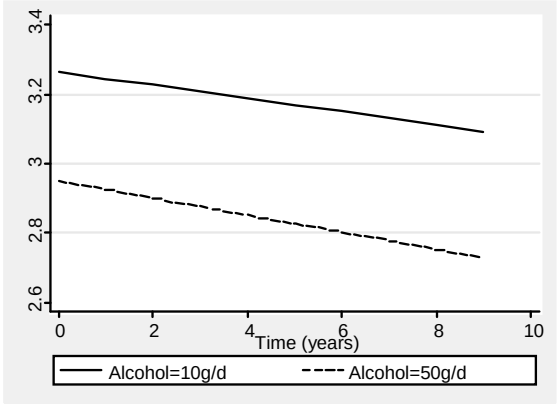
γ_{00}>0; p<0.001
γ_{10}>0; p=0.068
Age>0; p<0.001
Age×Time<0; p=0.292
γ_{01}<0; p=0.61
γ_{11}>0; p=0.12



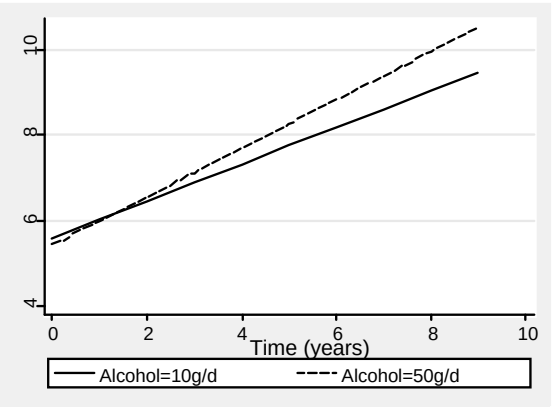
γ_{02}<0; p=0.060
γ_{12}>0; p=0.044



γ_{02}<0; p=0.87
γ_{12}<0; p=0.075



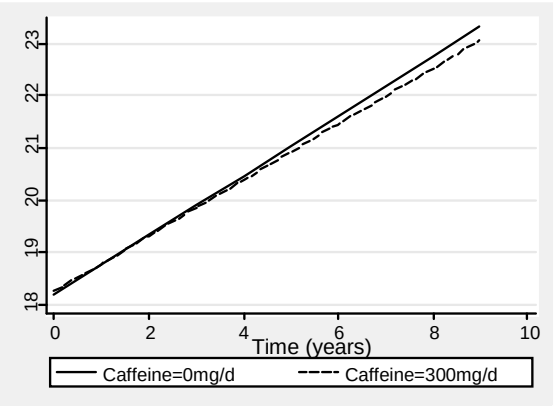
γ_{02}<0; p=0.23
γ_{12}<0; p=0.62



γ_{03}<0; p=0.81
γ_{13}>0; p=0.53

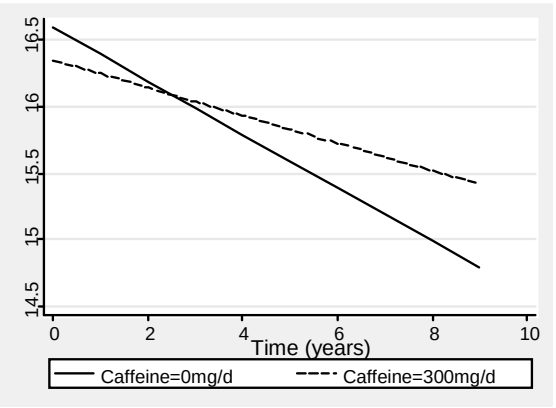
2E. VFT-C, total score

Baseline age=50y

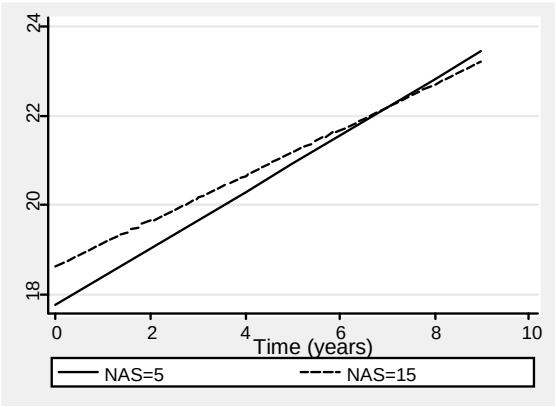


γ_{00}>0; p<0.001
γ_{10}>0; p=0.003
Age<0; p<0.011
Age×Time<0; p<0.001
γ_{01}>0; p=0.85
γ_{11}<0; p=0.46

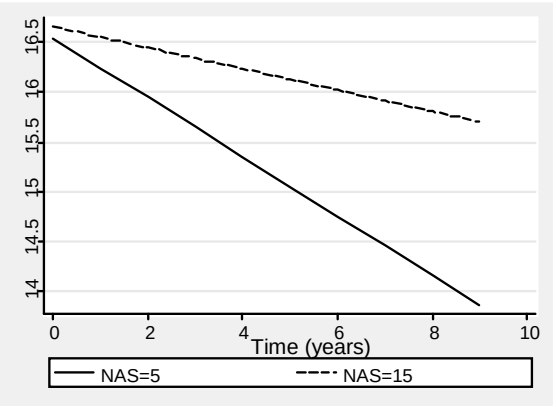
Baseline age=70y



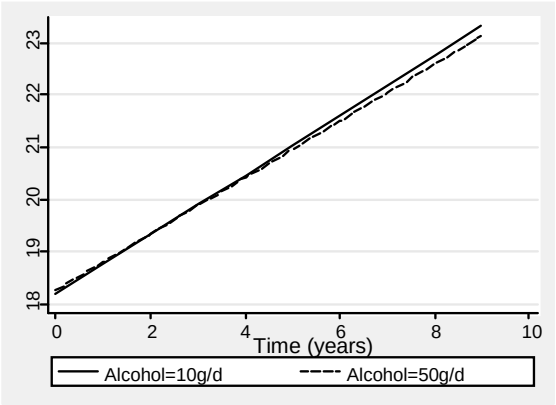
γ_{00}>0; p<0.001
γ_{10}>0; p=0.52
Age<0; p<0.001
Age×Time<0; p<0.027
γ_{01}<0; p=0.55
γ_{11}>0; p=0.21



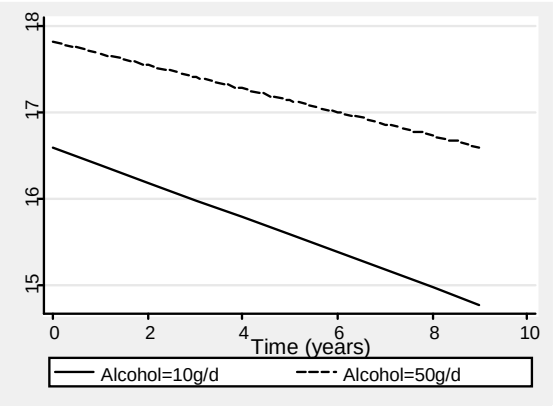
γ_{02}>0; p=0.19
γ_{12}<0; p=0.26



γ_{02}>0; p=0.86
γ_{12}>0; p=0.14



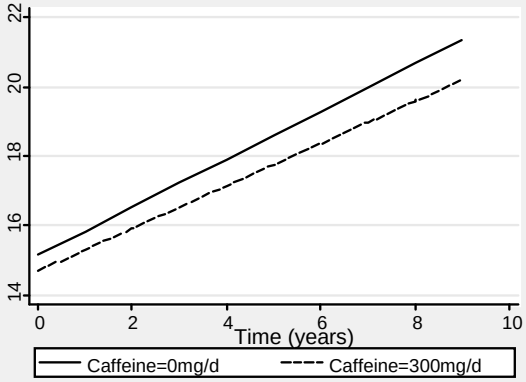
γ_{03}>0; p=0.89
γ_{13}<0; p=0.66



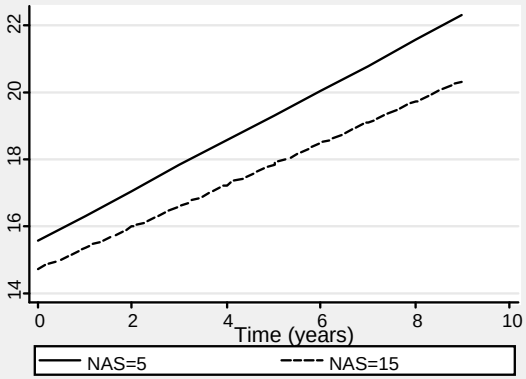
γ_{03}>0; p=0.06
γ_{13}>0; p=0.63

2F. VFT-L, total score

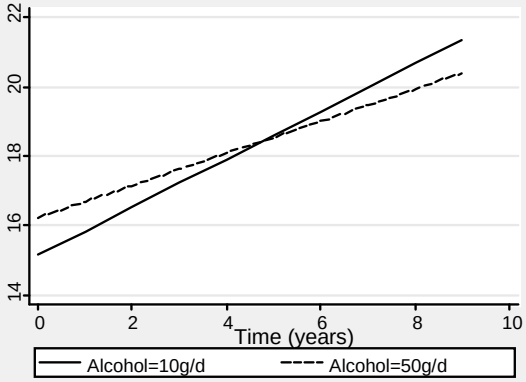
Baseline age=50y



γ_{00}>0; p<0.001
γ_{10}>0; p=0.001
Age<0; p<0.97
Age×Time<0; p<0.001
γ_{01}<0; p=0.30
γ_{11}<0; p=0.14

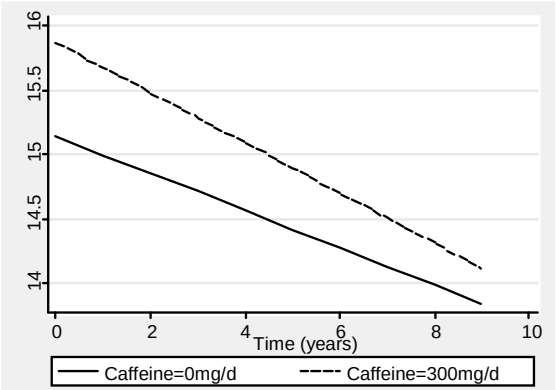


γ_{02}<0; p=0.30
γ_{12}<0; p=0.27

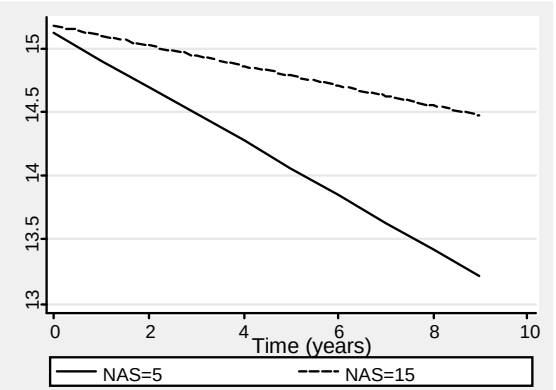


γ_{03}>0; p=0.096
γ_{13}<0; p=0.001

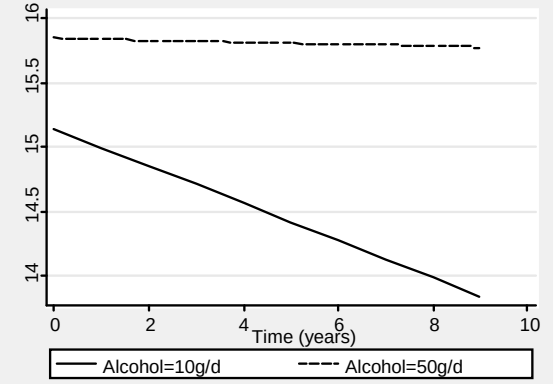
Baseline age=70y



γ_{00}>0; p<0.001
γ_{10}>0; p=0.66
Age<0; p=0.010
Age×Time<0; p=0.21
γ_{01}>0; p=0.20
γ_{11}<0; p=0.55



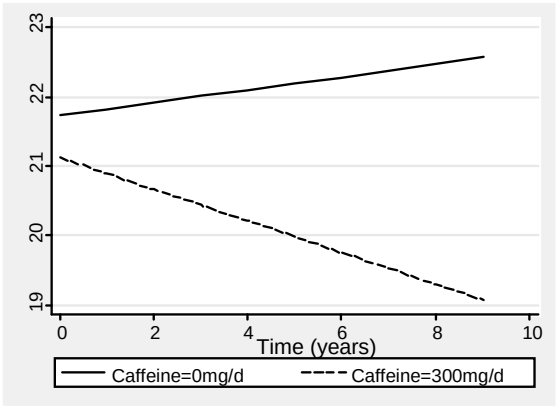
γ_{02}<0; p=0.95
γ_{12}<0; p=0.33



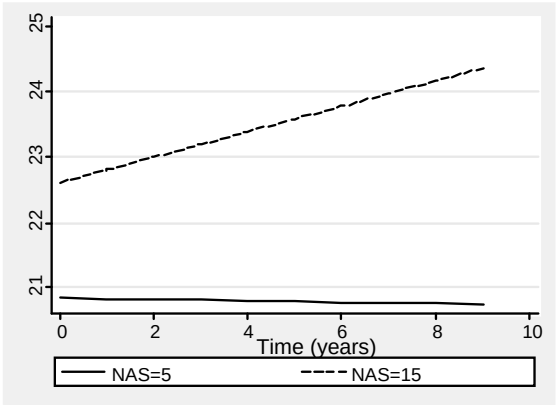
γ_{03}>0; p=0.42
γ_{13}>0; p=0.35

2G. TRAILS A, time(sec)

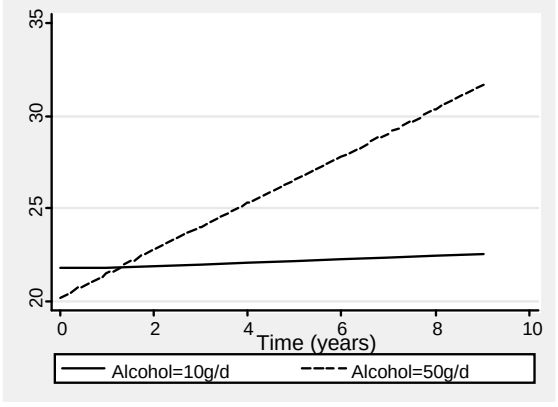
Baseline age=50y



γ_{00}>0; p<0.001
γ_{10}>0; p=0.93
Age>0; p=0.017
Age×Time<0; p=0.78
γ_{01}<0; p=0.66
γ_{11}<0; p=0.42

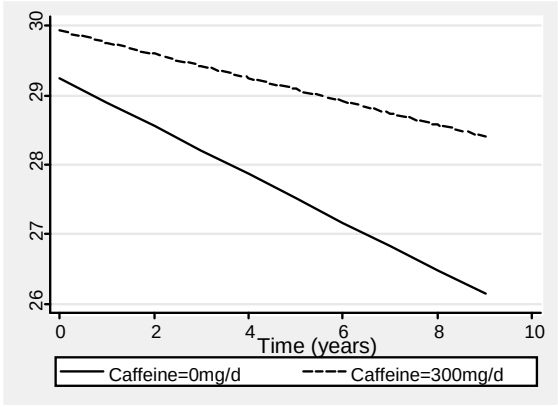


γ_{02}>0; p=0.52
γ_{12}>0; p=0.80

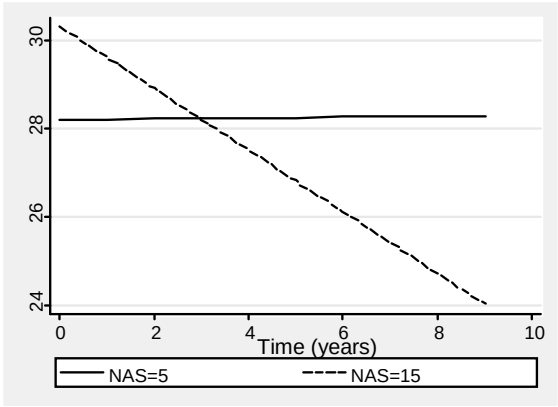


γ_{03}>0; p=0.49
γ_{13}>0; p=0.06

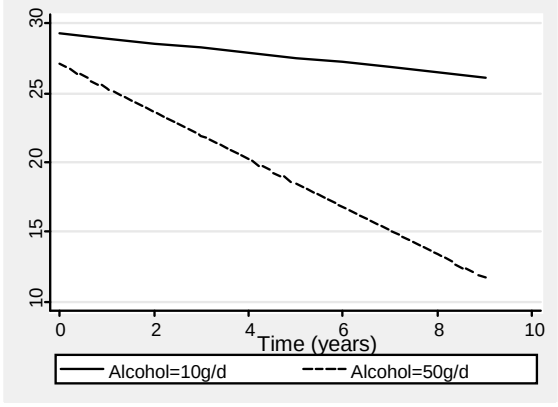
Baseline age=70y



γ_{00}>0; p=0.074
γ_{10}<0; p=0.72
Age>0; p<0.001
Age×Time>0; p=0.54
γ_{01}>0; p=0.76
γ_{11}>0; p=0.81



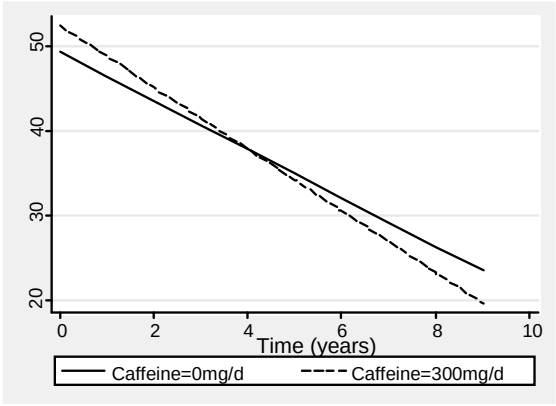
γ_{02}>0; p=0.57
γ_{12}<0; p=0.56



γ_{03}<0; p=0.52
γ_{13}<0; p=0.25

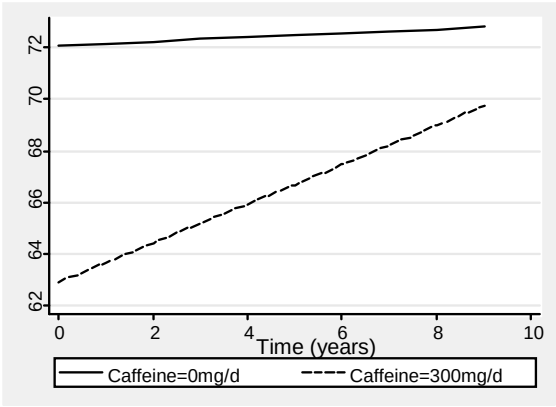
2H. TRAILS B, time (sec)

Baseline age=50y

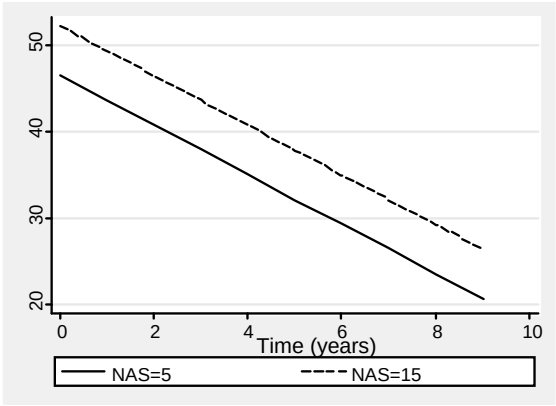


γ_{00}>0; p<0.001
γ_{10}<0; p=0.44
Age>0; p=0.023
Age×Time>0; p=0.25
γ_{01}>0; p=0.37
γ_{11}<0; p=0.42

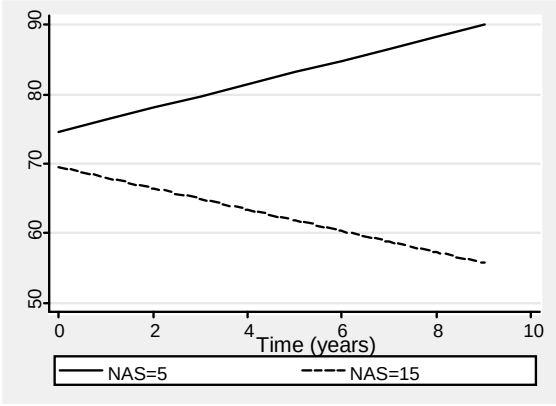
Baseline age=70y



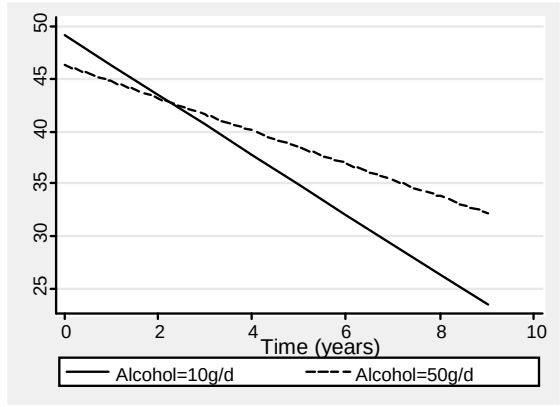
γ_{00}<0; =0.93
γ_{10}<0; p=0.76
Age>0; p<0.001
Age×Time>0; p=0.48
γ_{01}<0; p=0.19
γ_{11}>0.23; p=0.60



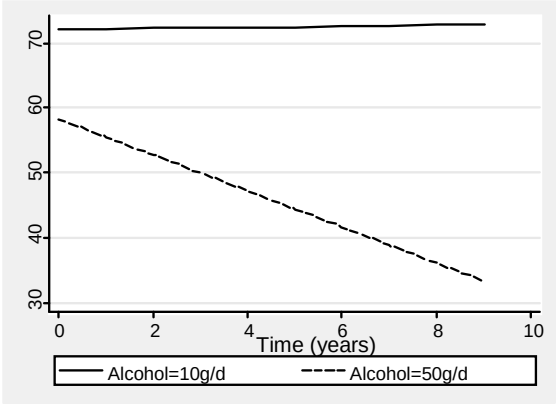
γ_{02}>0; p=0.41
γ_{12}<0; p=1.00



γ_{02}<0; p=0.66
γ_{12}<0; p=0.11



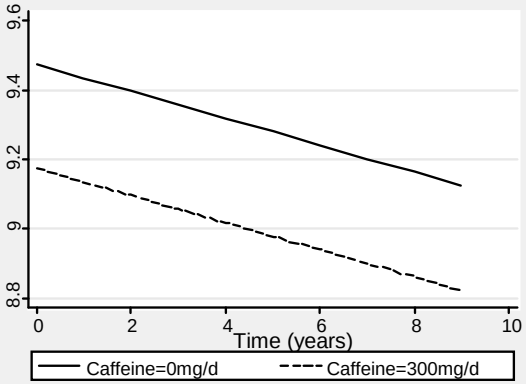
γ_{03}<0; p=0.60
γ_{13}>0; p=0.35



γ_{03}<0; p=0.20
γ_{13}<0; p=0.17

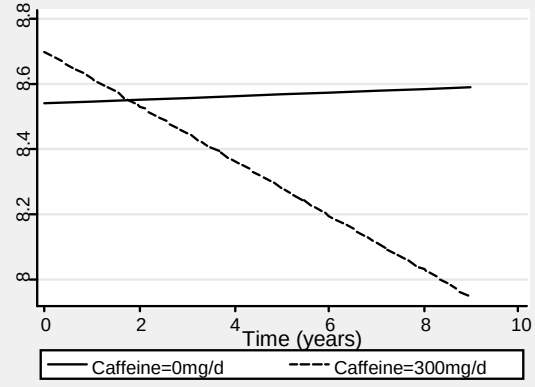
2I. DS-F, total score

Baseline age=50y

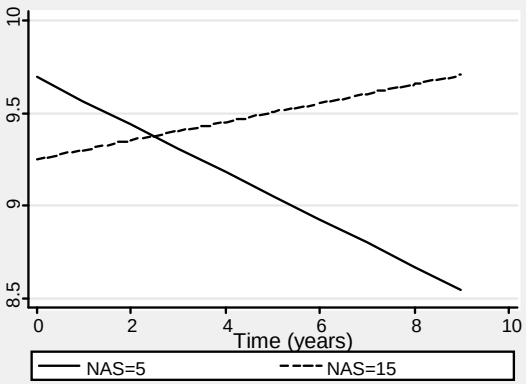


γ_{00}>0; p<0.001
γ_{10}<0; p=0.83
Age<0; p=0.18
Age×Time<0; p=0.71
γ_{01}<0; p=0.99
γ_{11}<0; p=0.99

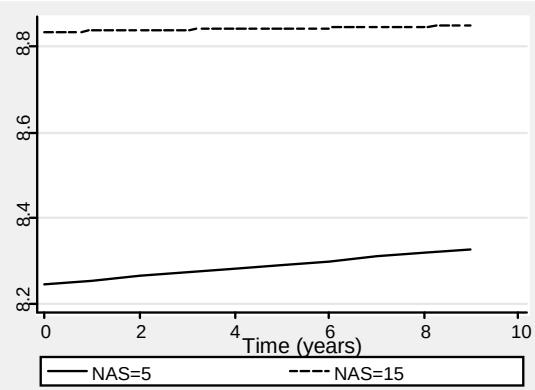
Baseline age=70y



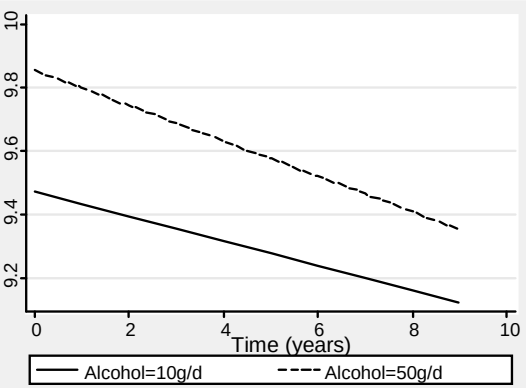
γ_{00}>0; p<0.001
γ_{10}<0; p=0.48
Age<0; 0.008
Age×Time>0; p=0.37
γ_{01}>0; p=0.37
γ_{11}>0; p=0.60



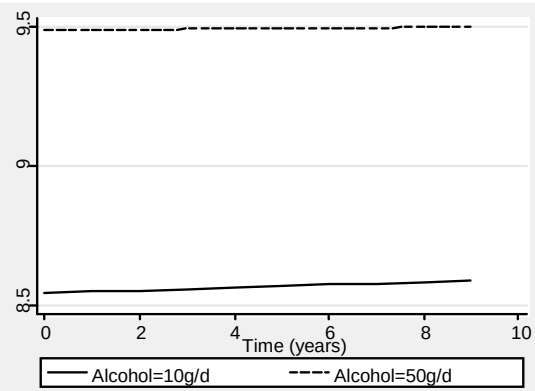
γ_{02}<0; p=0.36
γ_{12}>0; p=0.040



γ_{02}>0; p=0.60
γ_{12}<0; p=0.06



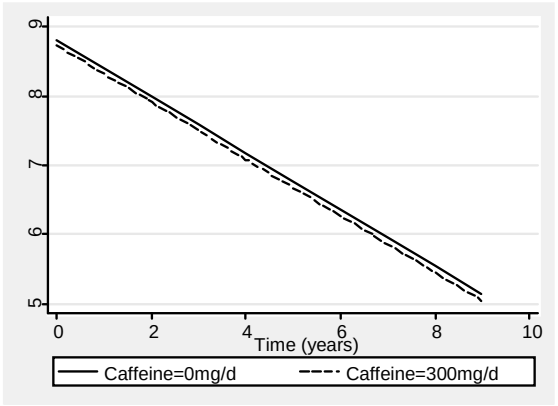
γ_{03}>0; p=0.29
γ_{13}>0; p=0.69



γ_{03}>0; p=0.045
γ_{13}<0; p=0.96

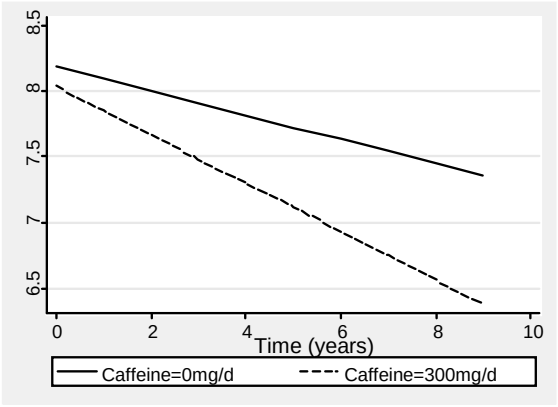
2J. DS-B, total score

Baseline age=50y

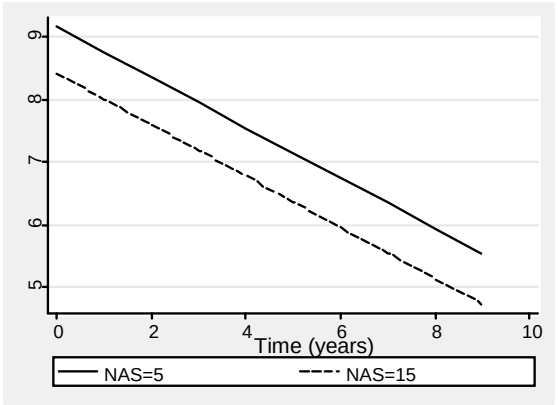


γ_{00}>0; p<0.001
γ_{10}<0; p=0.001
Age<0; p=0.068
Age×Time>0; p=0.018
γ_{01}<0; p=0.76
γ_{11}<0; p=0.98

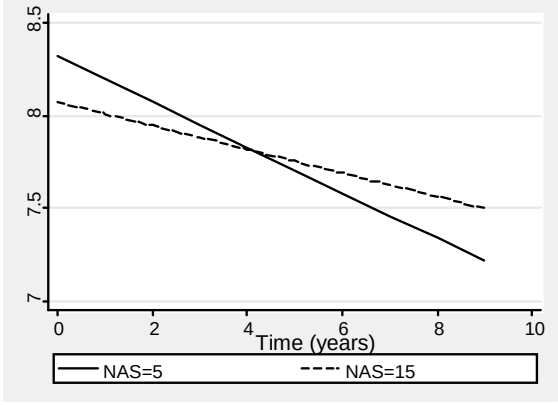
Baseline age=70y



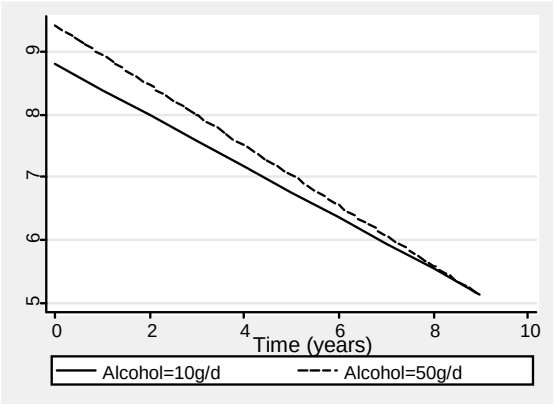
γ_{00}>0; p<0.001
γ_{10}<0; p=0.444
Age<0; p=0.037
Age×Time>0; p=0.85
γ_{01}<0; p=0.63
γ_{11}<0; p=0.30



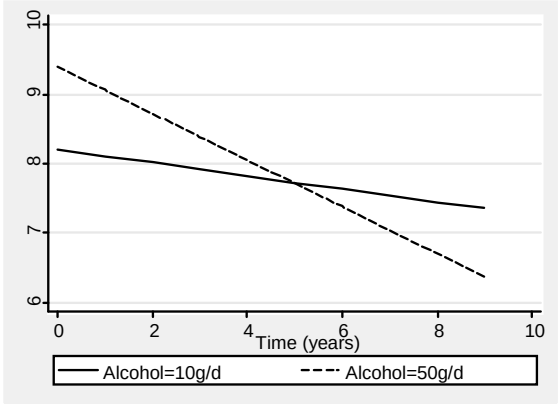
γ_{02}<0; p=0.14
γ_{12}<0; p=0.96



γ_{02}<0; p=0.66
γ_{12}>0; p=0.70



γ_{03}>0; p=0.11
γ_{13}<0; p=0.30



γ_{03}>0; p=0.015
γ_{13}<0; p=0.12

Abbreviations: BVRT=Benton Visual Retention Test; CVLT=California Verbal Learning Test; DS-B=Digits Span-Backwards; DS-F=Digits Span-Forward; MMSE=Mini-Mental State Examination; NAS=Nutrient Adequacy Score; Trails A=Trailmaking test, part A; Trails B=Trailmaking test, part B; VFT-C=Category fluency part of the verbal fluency test; VFT-L=Letter fluency part of the verbal fluency test.

Effect of caffeine is shown for participants aged either 50y or 70y at baseline (from stratified models <70y and ≥70y(See Table 2)). The effect is in a hypothetical population (50% men, 50% women), NH whites, mean education years=16y, baseline year=2000, non-smokers, mean BMI=25, baseline caloric consumption=2000 kcal/d, baseline NAS=10, baseline alcohol intake=10g/d.

Effect of NAS is shown for participants aged either 50y or 70y at baseline (from stratified models <70y and ≥70y(See Table 2)). The effect is in a hypothetical population (50% men, 50% women), NH whites, mean education years=16y, baseline year=2000, non-smokers, mean BMI=25, baseline caloric consumption=2000 kcal/d, baseline caffeine =0 mg/d, baseline alcohol intake=10g/d.

Effect of alcohol is shown for participants aged either 50y or 70y at baseline (from stratified models <70y and ≥70y(See Table 2)). The effect is in a hypothetical population (50% men, 50% women), NH whites, mean education years=16y, baseline year=2000, non-smokers, mean BMI=25, baseline caloric consumption=2000 kcal/d, baseline caffeine =0 mg/d, baseline NAS=10.