

# 1 Human Connectome Project (HCP)

List of phenotypes used from the HCP dataset

Variable	Description
Alertness	
MMSE_Score	Mini Mental Status Exam Total Score
PSQL_Score	Pittsburgh Sleep Questionnaire Total Score
Cognition (NIH Toolbox)	
CardSort_Unadj	Dimensional Change Card Sort Test: Unadjusted Scale Score
CogCrystalComp_AgeAdj	Cognition Crystallized Composite: Age Adjusted Scale Score
CogEarlyComp_AgeAdj	Cognition Early Childhood Composite: Age Adjusted Scale Score
CogFluidComp_AgeAdj	Cognition Fluid Composite: Age Adjusted Scale Score
CogTotalComp_AgeAdj	Cognition Total Composite Score: Age Adjusted Scale Score
Flanker_Unadj	Flanker Inhibitory Control and Attention Test: Unadjusted Scale Score
ListSort_Unadj	List Sorting Working Memory Test: Unadjusted Scale Score
PicSeq_AgeAdj	Picture Sequence Memory Test: Age-Adjusted Scale Score
PicVocab_AgeAdj	Picture Vocabulary Test: Age-Adjusted Scale Score
ProcSpeed_AgeAdj	Pattern Comparison Processing Speed Test: Age-Adjusted Scale Score
ReadEng_Unadj	Oral Reading Recognition Test: Unadjusted Scale Score
Cognition (Delay Discounting)	
DDisc_AUC.200	Area Under the Curve for Discounting of \$200
DDisc_AUC.40K	Area Under the Curve for Discounting of \$40,000
Cognition (Penn Tests)	
IWRD_TOT	Word Memory: Total Number of Correct Responses
PMAT24_A_CR	Progressive Matrices Number of Correct Responses
SCPT_SEN	Short Continuous Performance Test Sensitivity
SCPT_SPEC	Short Continuous Performance Test Specificity
VSPLOT_TC	Variable Short Penn Line Orientation Test: Total Number Correct
Emotion (NIH Toolbox)	
AngAffect_Unadj	Anger-Affect Survey: Unadjusted Scale Score
AngAggr_Unadj	Anger-Physical Aggression Survey: Unadjusted Scale Score
AngHostil_Unadj	Anger-Hostility Survey: Unadjusted Scale Score
FearAffect_Unadj	Fear-Affect Survey: Unadjusted Scale Score
FearSomat_Unadj	Fear-Somatic Arousal Survey: Unadjusted Scale Score
EmotSupp_Unadj	Emotional Support Survey: Unadjusted Scale Score
Friendship_Unadj	Friendship Survey: Unadjusted Scale Score
InstruSupp_Unadj	Instrumental Support Survey: Unadjusted Scale Score
LifeSatisf_Unadj	General Life Satisfaction Survey: Unadjusted Scale Score
Loneliness_Unadj	Loneliness Survey: Unadjusted Scale Score
MeanPurp_Unadj	Meaning and Purpose Survey Unadjusted Scale Score
PercHostil_Unadj	Perceived Hostility Survey: Unadjusted Scale Score
PercReject_Unadj	Perceived Rejection Survey: Unadjusted Scale Score
PercStress_Unadj	Perceived Stress Survey: Unadjusted Scale Score
PosAffect_Unadj	Positive Affect Survey: Unadjusted Scale Score
Sadness_Unadj	Sadness Survey: Unadjusted Scale Score
SelfEff_Unadj	Self-Efficacy Survey: Unadjusted Scale Score
Emotion (Penn Emotion Recognition Test)	
ER40ANG	Number of Correct Anger Identifications
ER40FEAR	Number of Correct Fear Identifications
ER40NOE	Number of Correct Neutral Identifications
ER40SAD	Number of Correct Sad Identifications
ER40_CR	Number of Correct Responses
ER40_CRT	Correct Responses Median Response Time (ms)
In-Scanner Task Performance	

Emotion_Task_Face_Acc	Accuracy % during FACE blocks in EMOTION task
Relational_Task_Acc	Average accuracy % during RELATIONAL task
Social_Task_Perc_Random	Overall % of stimuli that the subject rated as 'random' in SOCIAL task
Social_Task_Perc_TOM	Overall % of stimuli that received a 'social' rating in SOCIAL task
WM_Task_Acc	Accuracy across all conditions in working memory task
Language	
Language_Task_Math_Avg	Language Task MATH difficulty level
Language_Task_Story_Avg	Language Task STORY difficulty level
Motor (NIH Toolbox)	
Dexterity_Unadj	9-hole Pegboard Dexterity Test: Unadjusted Scale Score
Endurance_Unadj	2-minute Walk Endurance Test: Unadjusted Scale Score
GaitSpeed_Comp	4-Meter Walk Gait Speed Test: Computed Score
Strength_Unadj	Grip Strength Test: Unadjusted Scale Score
Personality (Neuroticism/Extroversion/Openness Five Factor Inventory)	
NEOFAC_A	Agreeableness
NEOFAC_C	Conscientiousness
NEOFAC_E	Extraversion
NEOFAC_N	Neuroticism
NEOFAC_O	Openness to Experience
Psychiatric and Life Function (Achenbach Adult Self-Report)	
ASR_Aggr_T	Aggressive Behavior Gender and Age Adjusted T-score
ASR_Anxd_Pct	Anxious/Depressed Gender and Age Adjusted T-score
ASR_Atn_T	Attention Problems Gender and Age Adjusted T-score
ASR_Extn_T	Externalizing Gender and Age Adjusted T-score
ASR_Intn_T	Internalizing Gender and Age Adjusted T-score
ASR_Intr_T	Intrusive Gender and Age Adjusted T-score
ASR_Rule_T	Rule Breaking Behavior Gender and Age Adjusted T-score
ASR_Soma_T	Somatic Complaints Gender and Age Adjusted T-score
ASR_TAO_Sum	Sum of Thought, Attention, and Other Problems Raw Score
ASR_Thot_T	Thought Problems Gender and Age Adjusted T-score
ASR_Totp_T	Total Problems Gender and Age Adjusted T-score
ASR_Witd_T	Withdrawn Gender and Age Adjusted T-score
Sensory	
Mars_Final	Mars Final Contrast Sensitivity Score
Odor_Unadj	NIH Toolbox Odor Identification Age 3+ Unadjusted Scale Score
PainInterf_Tscore	NIH Toolbox Pain Interference Survey Age 18+: T-score
Taste_Unadj	NIH Toolbox Regional Taste Intensity Age 12+ Unadjusted Scale Score

## 2 Philadelphia Neurodevelopmental Cohort (PNC)

List of phenotypes used from the PNC dataset

Variable	Description
Letter N-Back (LNB) task	
LNB_MCR	LNB Number of Correct Responses to for 1-Back and 2-Back Trials
LNB_MRTC	LNB Mean of the Median Response Time for Correct Responses for 1-Back (TP) and for 2-Back (TP) Trials
Letter N-Back (LNB) task	
MP_MP2RTCR	MP Median Response Time for Correct Mouse Click Responses
Penn Age Differentiation Test (PADT)	
PADT_A	PADT Total Correct Responses for All Test Trials, by genus
PADT_PC	PADT Percent Correct Responses for All Test Trials, by genus
PADT_SAME_PC	PADT Percent Correct Responses to Test Trials with No Age Difference, by genus
PADT_T	PADT Median Response Time for All Test Trials, by genus
Penn Conditional Exclusion Test (PCET)	
PCET_ACC2	PCET Calculated Accuracy Measure
PCET_CAT	PCET Number of Categories Achieved
Penn Continuous Performance Test (PCPT)	
PCPT_T_FP	PCPT Total of Incorrect Responses to Number Trials (TP) and Letter Trials (FP)
PCPT_T_FPRT	PCPT Median Response Time for Incorrect Responses to Number Trials (TP) and Letter Trials (TP)
PCPT_T_TP	PCPT Total of Correct Responses to Number Trials (TP) and Letter Trials (TP)
PCPT_T_TPRT	PCPT Median Response Time for Correct Responses to Number Trials (TP) and Letter Trials (TP)
Penn Emotion Differentiation Test (PEDT)	
PEDT_A	PEDT Total Correct Responses for All Test Trials, by genus
PEDT_ANG_PC	PEDT Percent of Correct Responses for Anger Trials, by genus
PEDT_FEAR_PC	PEDT Percent of Correct Responses for Fear Trials, by genus
PEDT_HAP_PC	PEDT Percent of Correct Responses for Happy Trials, by genus
PEDT_PC	PEDT Percent of Correct Responses for All Test Trials, by genus
PEDT_SAD_PC	PEDT Percent of Correct Responses for Sad Trials, by genus
PEDT_SAME_PC	PEDT Percent Correct Responses to Test Trials with Neutral Difference, by genus
PEDT_T	PEDT Median Response Time for All Test Trials, by genus
Penn Emotion Identification Test (PEIT)	
PEIT_CR	PEIT Total Correct Responses for All Test Trials, by genus
PEIT_CRT	PEIT Median Response Time for Total Correct Test Trial Responses, by genus
Penn Face Memory task (PFMT)	
PFMT_IFAC_RTC	PFMT Median Response Time for Total Correct Test Trial Responses
PFMT_IFAC_TOT	PFMT Total Correct Responses for All Test Trials
Penn Line Orientation Test (PLOT)	
PLOT_PC	PLOT Percent Correct Responses for All Test Trials, by genus
PLOT_TC	PLOT Total Correct Responses for All Test Trials, by genus
PLOT_TCRT	PLOT Median Response Time for Correct Trials, by genus
Primary Mental Abilities Test (PMAT)	
PMAT_CR	PMAT Total Correct Responses for All Test Trials, by genus
Penn Verbal Reasoning Test (PVRT)	
PVRT_CR	PVRT Total Correct Responses for All Test Trials, by genus
PVRT_RTCR	PVRT Median Response Time for Correct Verbal Reasoning Responses, by genus
PVRT_RTER	PVRT Median Response Time for Incorrect Verbal Reasoning Responses, by genus

Penn Word Memory task (PWMT)	
PWMT_KIWRD_RTC	PWMT Median Response Time for Total Correct Test Trial Responses
PWMT_KIWRD_TOT	PWMT Total Correct Responses for All Test Trials
Visual Object Learning Test (VOLT)	
VOLT_SVT	VOLT Total Correct Responses for All Test Trial
VOLT_SVTCRT	VOLT Median Response Time for Total Correct Responses
VOLT_SVTIRT	VOLT Median Response Time for Incorrect Responses
Wide Range Achievement Test (WRAT)	
WRAT_CR_RAW	WRAT Wide Range Assessment Test 4 Total Raw Score
WRAT_CR_STD	WRAT Wide Range Assessment Test Total Standard Score