LDT Multiple-Set Canonical Correlation Report

Contents

[Summary of Study, Networks, Conditions, and Behavioural Data 1](#_Toc68352795)

[Summary of Results for Controls 2](#_Toc68352796)

[Summary for Each Behavioural Variable 2](#_Toc68352797)

[For Sex: 2](#_Toc68352798)

[For Gender\_Identity: 2](#_Toc68352799)

[For TestAge: 3](#_Toc68352800)

[For Times\_married: 3](#_Toc68352801)

[For Children: 3](#_Toc68352802)

[For Living\_Arrangements: 3](#_Toc68352803)

[For Country\_born: 4](#_Toc68352804)

[For Adopted: 4](#_Toc68352805)

[For Fathers\_ethnicity: 4](#_Toc68352806)

[For Mothers\_ethnicity: 5](#_Toc68352807)

[For Participant\_Education\_Years: 5](#_Toc68352808)

[For Responsible\_Job: 5](#_Toc68352809)

[For Medications: 5](#_Toc68352810)

[For Head\_Injury: 5](#_Toc68352811)

[For Neurological\_Problems: 6](#_Toc68352812)

[For Smoking: 6](#_Toc68352813)

[For Religious\_Groups: 6](#_Toc68352814)

[For VAR\_GC: 6](#_Toc68352815)

[For AccEN: 6](#_Toc68352816)

[For AccHN: 7](#_Toc68352817)

[For AccHW: 7](#_Toc68352818)

[For YMRS\_6: 7](#_Toc68352819)

[For HAMD\_10: 7](#_Toc68352820)

[For HAMD\_14: 7](#_Toc68352821)

[Principal Component Analysis 8](#_Toc68352822)

[Multiple-Set Canonical Correlation Analysis 9](#_Toc68352823)

[Significant Correlation with Sex 9](#_Toc68352824)

[Significant Correlation with Gender\_Identity 9](#_Toc68352825)

[Significant Correlation with TestAge 10](#_Toc68352826)

[Significant Correlation with Times\_married 11](#_Toc68352827)

[Significant Correlation with Children 12](#_Toc68352828)

[Significant Correlation with Living\_Arrangements 13](#_Toc68352829)

[Significant Correlation with Country\_born 16](#_Toc68352830)

[Significant Correlation with Adopted 16](#_Toc68352831)

[Significant Correlation with Fathers\_ethnicity 17](#_Toc68352832)

[Significant Correlation with Mothers\_ethnicity 18](#_Toc68352833)

[Significant Correlation with Participant\_Education\_Years 19](#_Toc68352834)

[Significant Correlation with Responsible\_Job 19](#_Toc68352835)

[Significant Correlation with Medications 20](#_Toc68352836)

[Significant Correlation with Head\_Injury 21](#_Toc68352837)

[Significant Correlation with Neurological\_Problems 22](#_Toc68352838)

[Significant Correlation with Smoking 22](#_Toc68352839)

[Significant Correlation with Religious\_Groups 23](#_Toc68352840)

[Significant Correlation with AccEN 23](#_Toc68352841)

[Significant Correlation with AccHN 24](#_Toc68352842)

[Significant Correlation with AccHW 25](#_Toc68352843)

[Significant Correlation with YMRS\_6 25](#_Toc68352844)

[Significant Correlation with HAMD\_10 26](#_Toc68352845)

[Significant Correlation with HAMD\_14 26](#_Toc68352846)

[Summary of Results for Bipolar Patients 27](#_Toc68352847)

[Summary for Each Behavioural Variable 27](#_Toc68352848)

[For Handedness: 27](#_Toc68352849)

[For Sex: 27](#_Toc68352850)

[For Times\_married: 28](#_Toc68352851)

[For Children: 28](#_Toc68352852)

[For Birth\_complications: 28](#_Toc68352853)

[For Adopted: 28](#_Toc68352854)

[For Medications: 28](#_Toc68352855)

[For Hospitalized: 29](#_Toc68352856)

[For Head\_Injury: 29](#_Toc68352857)

[For Unconscious: 29](#_Toc68352858)

[For Seizure\_Convulsion: 29](#_Toc68352859)

[For Neurological\_Problems: 29](#_Toc68352860)

[For Paralysis\_Arthritis\_BackPain: 30](#_Toc68352861)

[For Smoking: 30](#_Toc68352862)

[For Spirituality\_Importance: 30](#_Toc68352863)

[For EN\_RT: 30](#_Toc68352864)

[For EW\_RT: 30](#_Toc68352865)

[For HW\_RT: 31](#_Toc68352866)

[For AccHW: 31](#_Toc68352867)

[Principal Component Analysis 31](#_Toc68352868)

[Multiple-Set Canonical Correlation Analysis 32](#_Toc68352869)

[Significant Correlation with Handedness 32](#_Toc68352870)

[Significant Correlation with Sex 32](#_Toc68352871)

[Significant Correlation with Times\_married 33](#_Toc68352872)

[Significant Correlation with Children 33](#_Toc68352873)

[Significant Correlation with Birth\_complications 35](#_Toc68352874)

[Significant Correlation with Medications 35](#_Toc68352875)

[Significant Correlation with Hospitalized 36](#_Toc68352876)

[Significant Correlation with Head\_Injury 36](#_Toc68352877)

[Significant Correlation with Unconscious 37](#_Toc68352878)

[Significant Correlation with Seizure\_Convulsion 37](#_Toc68352879)

[Significant Correlation with Neurological\_Problems 37](#_Toc68352880)

[Significant Correlation with Paralysis\_Arthritis\_BackPain 38](#_Toc68352881)

[Significant Correlation with Smoking 38](#_Toc68352882)

[Significant Correlation with Spirituality\_Importance 39](#_Toc68352883)

[Significant Correlation with EN\_RT 40](#_Toc68352884)

[Significant Correlation with EW\_RT 40](#_Toc68352885)

[Significant Correlation with HW\_RT 41](#_Toc68352886)

[Significant Correlation with AccHW 41](#_Toc68352887)

# Summary of Study, Networks, Conditions, and Behavioural Data

This report is for the Lexical Decision (LDT) task, in which participants were presented with strings of letters and had to determine whether each string was a real word. There were 2 groups: Controls, and Bipolar Patients. There were 4 conditions: HN, EN, HW, and EW. Subjects in the Hard Non-word (HN) condition were presented with non-words that looked like real words. Subjects in the Easy Non-word (EN) condition were presented with non-words that did not look like real words. Subjects in the Hard Word (HW) condition were presented with real but obscure words. Subjects in the Easy Word (EW) condition were presented with real and common words. The 3 networks identified as part of this study are: DMN, LPN, and RESP. Variables inputted include the ITP and RTB values for each network. Behavioural variables used in the analysis are Handedness, Sex, Gender\_Identity, TestAge, Marital\_status, Times\_married, Widowed, Children, Living\_Arrangements, City\_born, Country\_born, Birth\_complications, English, Adopted, Fathers\_ethnicity, Mothers\_ethnicity, Participant\_Education, Participant\_Education\_Years, Father\_Education, Mother\_Education, Parental\_Edu\_Sum, Spouse\_Education, Participant\_WorkStatus, Father\_WorkStatus, Mother\_WorkStatus, Spouse\_WorkStatus, Working\_or\_School, Months\_Unemployed, Present\_Occupation, Responsible\_Job, HeadofHousehold\_Occupation, Annual\_Income, Medications, Hospitalized, Head\_Injury, Unconscious, Seizure\_Convulsion, Neurological\_Problems, ECT, Vision\_Difficulties, Paralysis\_Arthritis\_BackPain, Chronic\_Illnesses, Cardio\_Condition, Smoking, Area\_Residence, Religion\_Importance, Spirituality\_Importance, Religious\_Groups, VAR\_GC, EN\_RT, HN\_RT, EW\_RT, HW\_RT, AccEN, AccHN, AccEW, AccHW, SCID\_01\_Lifetime, SCID\_01\_PastMonth, SCID\_01\_PastMonth\_Specify, SCID\_02\_Lifetime, SCID\_02\_PastMonth, SCID\_02\_PastMonth\_Specify, SCID\_03\_Past2Yrs, SCID\_04\_Lifetime, SCID\_04\_PastMonth, SCID\_05\_Lifetime, SCID\_05\_PastMonth, SCID\_05\_Specify, SCID\_06\_Lifetime, SCID\_06\_PastMonth, SCID\_06\_Specify, SCID\_07\_Lifetime, SCID\_07\_PastMonth, SCID\_08\_PriorPast2Yrs, SCID\_08\_Past2Yrs, SCID\_09\_Past12Months, SCID\_10\_Lifetime, SCID\_10\_PastMonth, SCID\_11\_Lifetime, SCID\_11\_PastMonth, SCID\_11\_Specify, SCID\_12\_Lifetime, SCID\_12\_PastMonth, SCID\_12\_Specify, SCID\_13\_Lifetime, SCID\_13\_PastMonth, SCID\_14\_Lifetime, SCID\_14\_PastMonth, SCID\_15\_Lifetime, SCID\_15\_PastMonth, SCID\_16\_Lifetime, SCID\_16\_PastMonth, SCID\_17\_Lifetime, SCID\_17\_PastMonth, SCID\_18\_Lifetime, SCID\_18\_PastMonth, SCID\_18\_Specify, SCID\_19\_Lifetime, SCID\_19\_PastMonth, SCID\_19\_Specify, SCID\_20\_Lifetime, SCID\_20\_PastMonth, SCID\_21\_PriorPast12Months, SCID\_21\_Past12Months, SCID\_22\_PriorPast12Months, SCID\_22\_Past12Months, SCID\_23\_PriorPast12Months, SCID\_23\_Past12Months, SCID\_24\_PriorPast12Months, SCID\_24\_Past12Months, SCID\_25\_PriorPast12Months, SCID\_25\_Past12Months, SCID\_26\_PriorPast12Months, SCID\_26\_Past12Months, SCID\_27\_PriorPast12Months, SCID\_27\_Past12Months, SCID\_28\_PriorPast12Months, SCID\_28\_Past12Months, SCID\_29\_PriorPast12Months, SCID\_29\_Past12Months, SCID\_30\_Lifetime, SCID\_30\_PastMonth, SCID\_32\_Lifetime, SCID\_32\_Past6Months, SCID\_34\_Lifetime, SCID\_34\_Past6Months, SCID\_36\_Lifetime, SCID\_36\_PastMonth, SCID\_37\_Lifetime, SCID\_37\_PastMonth, SCID\_37\_Specify, SCID\_38\_Lifetime, SCID\_38\_PastMonth, SCID\_38\_Specify, SCID\_64\_Lifetime, SCID\_64\_PastMonth, SCID\_64\_Specify, SOFAS\_Range, SOFAS\_Score, FAST\_Autonomy\_1, FAST\_Autonomy\_2, FAST\_Autonomy\_3, FAST\_Autonomy\_4, FAST\_Occupational\_5, FAST\_Occupational\_6, FAST\_Occupational\_7, FAST\_Occupational\_8, FAST\_Occupational\_9, FAST\_Cognitive\_10, FAST\_Cognitive\_11, FAST\_Cognitive\_12, FAST\_Cognitive\_13, FAST\_Cognitive\_14, FAST\_Financial\_15, FAST\_Financial\_16, FAST\_Interpersonal\_17, FAST\_Interpersonal\_18, FAST\_Interpersonal\_19, FAST\_Interpersonal\_20, FAST\_Interpersonal\_21, FAST\_Interpersonal\_22, FAST\_Leisure\_23, FAST\_Leisure\_24, FAST\_TOTAL\_SCORE, YMRS\_1, YMRS\_2, YMRS\_3, YMRS\_4, YMRS\_5, YMRS\_6, YMRS\_7, YMRS\_8, YMRS\_9, YMRS\_10, YMRS\_11, YMRS\_TOTAL\_SCORE, HAMD\_1, HAMD\_2, HAMD\_3, HAMD\_4, HAMD\_5, HAMD\_6, HAMD\_7, HAMD\_8, HAMD\_9, HAMD\_10, HAMD\_11, HAMD\_12, HAMD\_13, HAMD\_14, HAMD\_15, HAMD\_16, HAMD\_17, HAMD\_TOTAL, and WTAR\_Standard.

# Summary of Results for Controls

## Summary for Each Behavioural Variable

Only variables with significant results are reported.

### For Sex:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN&RESP | RESP | 8 | -0.58 | HW\_up negative, EW\_up positive |

### For Gender\_Identity:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN&RESP | RESP | 8 | -0.58 | HW\_up negative, EW\_up positive |

### For TestAge:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&RESP | DMN | 3 | 0.63 | HN\_up negative, HW\_up negative, EW\_up negative |
| DMN&RESP | RESP | 3 | 0.6 | EN\_up negative, HW\_up negative |
| DMN&LPN&RESP | DMN | 5 | 0.57 | HN\_up negative, HW\_up negative, EW\_up negative |

### For Times\_married:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&RESP | DMN | 1 | -0.61 | HN\_up negative, EN\_up positive, EW\_up positive |
| DMN&RESP | RESP | 1 | -0.58 | EN\_up negative, EW\_up negative |
| DMN&LPN&RESP | RESP | 1 | -0.55 | HN\_up positive, EN\_up negative, HW\_up positive, EW\_up negative |

### For Children:

|  |  |  |  |
| --- | --- | --- | --- |
| **PCA** | | | |
| **Network** | **PC #** | **R value** | **Conditions** |
| LPN | 1 | -0.55 | EN\_up positive, EW\_up positive |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| LPN&RESP | LPN | 4 | 0.62 | HN\_up positive, EN\_up negative, EW\_up negative |
| DMN&LPN&RESP | LPN | 8 | 0.55 | EW\_up negative |

### For Living\_Arrangements:

|  |  |  |  |
| --- | --- | --- | --- |
| **PCA** | | | |
| **Network** | **PC #** | **R value** | **Conditions** |
| RESP | 1 | 0.63 | HN\_up negative, EN\_up positive, HW\_up negative, EW\_up positive |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN | DMN | 4 | 0.57 | HN\_up positive, EN\_up negative |
| DMN&RESP | RESP | 1 | -0.58 | EN\_up negative, EW\_up negative |
| LPN&RESP | LPN | 4 | 0.64 | HN\_up positive, EN\_up negative, EW\_up negative |
| DMN&LPN&RESP | DMN | 1 | -0.58 | EN\_up positive, EW\_up positive |
| DMN&LPN&RESP | LPN | 1 | -0.59 | EN\_up positive, EW\_up positive |
| DMN&LPN&RESP | RESP | 1 | -0.63 | HN\_up positive, EN\_up negative, HW\_up positive, EW\_up negative |

### For Country\_born:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN | LPN | 7 | 0.58 | HN\_up negative, EN\_up positive, EW\_up positive |

### For Adopted:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN | DMN | 4 | 0.55 | HN\_up positive, EN\_up negative |

### For Fathers\_ethnicity:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&RESP | RESP | 8 | -0.65 | HW\_up positive |
| LPN&RESP | RESP | 3 | 0.63 | HN\_up positive, EN\_up positive, HW\_up positive |
| DMN&LPN&RESP | RESP | 7 | 0.66 | HN\_up negative, HW\_up negative, EW\_up negative |

### For Mothers\_ethnicity:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN&RESP | DMN | 5 | -0.55 | HN\_up negative, HW\_up negative, EW\_up negative |

### For Participant\_Education\_Years:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| LPN&RESP | LPN | 6 | 0.6 | HN\_up negative, EN\_up negative, HW\_up negative |

### For Responsible\_Job:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN | LPN | 3 | -0.62 | HN\_up negative, HW\_up negative |
| LPN&RESP | LPN | 2 | -0.57 | EN\_up negative |
| DMN&LPN&RESP | LPN | 1 | 0.6 | EN\_up positive, EW\_up positive |

### For Medications:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| LPN&RESP | LPN | 5 | -0.55 | HW\_up negative |
| DMN&LPN&RESP | RESP | 8 | 0.71 | HW\_up negative, EW\_up positive |

### For Head\_Injury:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN&RESP | LPN | 1 | -0.58 | EN\_up positive, EW\_up positive |

### For Neurological\_Problems:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN | DMN | 3 | 0.65 | HW\_up positive |

### For Smoking:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| LPN&RESP | LPN | 5 | 0.55 | HW\_up negative |

### For Religious\_Groups:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN | LPN | 2 | -0.66 | HN\_up positive, HW\_up negative, EW\_up negative |
| LPN&RESP | LPN | 8 | -0.68 | EW\_up negative |

### For VAR\_GC:

|  |  |  |  |
| --- | --- | --- | --- |
| **PCA** | | | |
| **Network** | **PC #** | **R value** | **Conditions** |
| LPN | 1 | 0.55 | EN\_up positive, EW\_up positive |

No significant results with CCA.

### For AccEN:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN | LPN | 3 | -0.61 | HN\_up negative, HW\_up negative |
| DMN&RESP | DMN | 4 | -0.59 | HW\_up positive, EW\_up positive |

### For AccHN:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| LPN&RESP | LPN | 7 | 0.57 | HN\_up positive, HW\_up positive |

### For AccHW:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN | DMN | 7 | -0.56 | HW\_up positive |
| DMN&RESP | DMN | 4 | -0.58 | HW\_up positive, EW\_up positive |

### For YMRS\_6:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN&RESP | RESP | 4 | -0.65 | EN\_up negative, EW\_up positive |

### For HAMD\_10:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN&RESP | RESP | 4 | -0.65 | EN\_up negative, EW\_up positive |

### For HAMD\_14:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN&RESP | RESP | 4 | -0.65 | EN\_up negative, EW\_up positive |

## Principal Component Analysis

|  |  |
| --- | --- |
| Network | LPN |
| PCA component | **1.0** |
| Correlated with | Demo |
| Condition | Children |
| R | **-0.55** |
| p | 0.01 |
| HN\_up | -0.19 |
| EN\_up | **0.72** |
| HW\_up | -0.15 |
| EW\_up | **0.84** |
| HN\_down | -0.1 |
| EN\_down | **-0.65** |
| HW\_down | -0.15 |
| EW\_down | **-0.74** |

|  |  |
| --- | --- |
| Network | LPN |
| PCA component | **1.0** |
| Correlated with | Demo |
| Condition | VAR\_GC |
| R | **0.55** |
| p | 0.01 |
| HN\_up | -0.19 |
| EN\_up | **0.72** |
| HW\_up | -0.15 |
| EW\_up | **0.84** |
| HN\_down | -0.1 |
| EN\_down | **-0.65** |
| HW\_down | -0.15 |
| EW\_down | **-0.74** |

|  |  |
| --- | --- |
| Network | RESP |
| PCA component | **1.0** |
| Correlated with | Demo |
| Condition | Living\_Arrangements |
| R | **0.63** |
| p | 0.0 |
| HN\_up | **-0.47** |
| EN\_up | **0.31** |
| HW\_up | **-0.6** |
| EW\_up | **0.5** |
| HN\_down | **0.8** |
| EN\_down | **0.55** |
| HW\_down | **0.91** |
| EW\_down | -0.02 |

## Multiple-Set Canonical Correlation Analysis

### Significant Correlation with Sex

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Sex  
Canonical Variate 8 (R = -0.58, P < 0.01)

RESP CV8 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.07 |
| EN\_up | -0.12 |
| HW\_up | **-0.28** |
| EW\_up | **0.29** |

DMN CV8 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.29** |
| EN\_up | -0.17 |
| HW\_up | -0.25 |
| EW\_up | **0.56** |

LPN CV8 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.13 |
| EN\_up | -0.13 |
| HW\_up | 0.14 |
| EW\_up | **-0.78** |

### Significant Correlation with Gender\_Identity

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Gender\_Identity  
Canonical Variate 8 (R = -0.58, P < 0.01)

RESP CV8 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.07 |
| EN\_up | -0.12 |
| HW\_up | **-0.28** |
| EW\_up | **0.29** |

DMN CV8 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.29** |
| EN\_up | -0.17 |
| HW\_up | -0.25 |
| EW\_up | **0.56** |

LPN CV8 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.13 |
| EN\_up | -0.13 |
| HW\_up | 0.14 |
| EW\_up | **-0.78** |

### Significant Correlation with TestAge

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and TestAge  
Canonical Variate 3 (R = 0.63, P < 0.01)

DMN CV3 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.66** |
| EN\_up | -0.23 |
| HW\_up | **-0.65** |
| EW\_up | **-0.34** |

RESP CV3 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.16 |
| EN\_up | **-0.48** |
| HW\_up | **-0.38** |
| EW\_up | -0.23 |

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and TestAge  
Canonical Variate 3 (R = 0.6, P < 0.01)

RESP CV3 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.16 |
| EN\_up | **-0.48** |
| HW\_up | **-0.38** |
| EW\_up | -0.23 |

DMN CV3 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.66** |
| EN\_up | -0.23 |
| HW\_up | **-0.65** |
| EW\_up | **-0.34** |

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and TestAge  
Canonical Variate 5 (R = 0.57, P < 0.01)

DMN CV5 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.6** |
| EN\_up | -0.21 |
| HW\_up | **-0.81** |
| EW\_up | **-0.54** |

LPN CV5 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.29 |
| EN\_up | -0.02 |
| HW\_up | **0.64** |
| EW\_up | 0.2 |

RESP CV5 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.31** |
| EN\_up | **-0.49** |
| HW\_up | **-0.38** |
| EW\_up | -0.12 |

### Significant Correlation with Times\_married

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and Times\_married  
Canonical Variate 1 (R = -0.61, P < 0.01)

DMN CV1 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.25** |
| EN\_up | **0.24** |
| HW\_up | 0.13 |
| EW\_up | **0.36** |

RESP CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.26 |
| EN\_up | **-0.5** |
| HW\_up | 0.21 |
| EW\_up | **-0.8** |

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Times\_married  
Canonical Variate 1 (R = -0.58, P < 0.01)

RESP CV1 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.26 |
| EN\_up | **-0.5** |
| HW\_up | 0.21 |
| EW\_up | **-0.8** |

DMN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.25** |
| EN\_up | **0.24** |
| HW\_up | 0.13 |
| EW\_up | **0.36** |

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Times\_married  
Canonical Variate 1 (R = -0.55, P < 0.01)

RESP CV1 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.35** |
| EN\_up | **-0.56** |
| HW\_up | **0.52** |
| EW\_up | **-0.6** |

DMN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.13 |
| EN\_up | **0.39** |
| HW\_up | 0.08 |
| EW\_up | **0.29** |

LPN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.25 |
| EN\_up | **0.76** |
| HW\_up | 0.14 |
| EW\_up | **0.54** |

### Significant Correlation with Children

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Children  
Canonical Variate 4 (R = 0.62, P < 0.01)

LPN CV4 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.48** |
| EN\_up | **-0.71** |
| HW\_up | -0.07 |
| EW\_up | **-0.6** |

RESP CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.29 |
| EN\_up | 0.06 |
| HW\_up | **-0.76** |
| EW\_up | 0.09 |

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Children  
Canonical Variate 8 (R = 0.55, P < 0.01)

LPN CV8 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.13 |
| EN\_up | -0.13 |
| HW\_up | 0.14 |
| EW\_up | **-0.78** |

DMN CV8 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.29** |
| EN\_up | -0.17 |
| HW\_up | -0.25 |
| EW\_up | **0.56** |

RESP CV8 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.07 |
| EN\_up | -0.12 |
| HW\_up | **-0.28** |
| EW\_up | **0.29** |

### Significant Correlation with Living\_Arrangements

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52

Significant correlation between DMN and Living\_Arrangements  
Canonical Variate 4 (R = 0.57, P < 0.01)

DMN CV4 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.39** |
| EN\_up | **-0.22** |
| HW\_up | 0.16 |
| EW\_up | -0.17 |

LPN CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.02 |
| EN\_up | **-0.48** |
| HW\_up | **-0.45** |
| EW\_up | **-0.32** |

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Living\_Arrangements  
Canonical Variate 1 (R = -0.58, P < 0.01)

RESP CV1 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.26 |
| EN\_up | **-0.5** |
| HW\_up | 0.21 |
| EW\_up | **-0.8** |

DMN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.25** |
| EN\_up | **0.24** |
| HW\_up | 0.13 |
| EW\_up | **0.36** |

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Living\_Arrangements  
Canonical Variate 4 (R = 0.64, P < 0.01)

LPN CV4 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.48** |
| EN\_up | **-0.71** |
| HW\_up | -0.07 |
| EW\_up | **-0.6** |

RESP CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.29 |
| EN\_up | 0.06 |
| HW\_up | **-0.76** |
| EW\_up | 0.09 |

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and Living\_Arrangements  
Canonical Variate 1 (R = -0.58, P < 0.01)

DMN CV1 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.13 |
| EN\_up | **0.39** |
| HW\_up | 0.08 |
| EW\_up | **0.29** |

LPN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.25 |
| EN\_up | **0.76** |
| HW\_up | 0.14 |
| EW\_up | **0.54** |

RESP CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.35** |
| EN\_up | **-0.56** |
| HW\_up | **0.52** |
| EW\_up | **-0.6** |

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Living\_Arrangements  
Canonical Variate 1 (R = -0.59, P < 0.01)

LPN CV1 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.25 |
| EN\_up | **0.76** |
| HW\_up | 0.14 |
| EW\_up | **0.54** |

DMN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.13 |
| EN\_up | **0.39** |
| HW\_up | 0.08 |
| EW\_up | **0.29** |

RESP CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.35** |
| EN\_up | **-0.56** |
| HW\_up | **0.52** |
| EW\_up | **-0.6** |

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Living\_Arrangements  
Canonical Variate 1 (R = -0.63, P < 0.01)

RESP CV1 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.35** |
| EN\_up | **-0.56** |
| HW\_up | **0.52** |
| EW\_up | **-0.6** |

DMN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.13 |
| EN\_up | **0.39** |
| HW\_up | 0.08 |
| EW\_up | **0.29** |

LPN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.25 |
| EN\_up | **0.76** |
| HW\_up | 0.14 |
| EW\_up | **0.54** |

### Significant Correlation with Country\_born

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52

Significant correlation between LPN and Country\_born  
Canonical Variate 7 (R = 0.58, P < 0.01)

LPN CV7 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.23** |
| EN\_up | **0.17** |
| HW\_up | 0.08 |
| EW\_up | **0.28** |

DMN CV7 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.03 |
| EN\_up | -0.02 |
| HW\_up | **0.34** |
| EW\_up | 0.09 |

### Significant Correlation with Adopted

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52

Significant correlation between DMN and Adopted  
Canonical Variate 4 (R = 0.55, P < 0.01)

DMN CV4 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.39** |
| EN\_up | **-0.22** |
| HW\_up | 0.16 |
| EW\_up | -0.17 |

LPN CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.02 |
| EN\_up | **-0.48** |
| HW\_up | **-0.45** |
| EW\_up | **-0.32** |

### Significant Correlation with Fathers\_ethnicity

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Fathers\_ethnicity  
Canonical Variate 8 (R = -0.65, P < 0.01)

RESP CV8 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.02 |
| EN\_up | 0.04 |
| HW\_up | **0.25** |
| EW\_up | 0.07 |

DMN CV8 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.17 |
| EN\_up | -0.26 |
| HW\_up | **-0.35** |
| EW\_up | **0.61** |

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Fathers\_ethnicity  
Canonical Variate 3 (R = 0.63, P < 0.01)

RESP CV3 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.44** |
| EN\_up | **0.37** |
| HW\_up | **0.23** |
| EW\_up | -0.18 |

LPN CV3 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.49** |
| EN\_up | **-0.41** |
| HW\_up | 0.08 |
| EW\_up | -0.22 |

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Fathers\_ethnicity  
Canonical Variate 7 (R = 0.66, P < 0.01)

RESP CV7 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.18** |
| EN\_up | 0.03 |
| HW\_up | **-0.3** |
| EW\_up | **-0.27** |

DMN CV7 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.07 |
| EN\_up | **-0.47** |
| HW\_up | **0.36** |
| EW\_up | **-0.51** |

LPN CV7 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.31** |
| EN\_up | **-0.48** |
| HW\_up | -0.18 |
| EW\_up | -0.06 |

### Significant Correlation with Mothers\_ethnicity

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and Mothers\_ethnicity  
Canonical Variate 5 (R = -0.55, P < 0.01)

DMN CV5 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.6** |
| EN\_up | -0.21 |
| HW\_up | **-0.81** |
| EW\_up | **-0.54** |

LPN CV5 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.29 |
| EN\_up | -0.02 |
| HW\_up | **0.64** |
| EW\_up | 0.2 |

RESP CV5 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.31** |
| EN\_up | **-0.49** |
| HW\_up | **-0.38** |
| EW\_up | -0.12 |

### Significant Correlation with Participant\_Education\_Years

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Participant\_Education\_Years  
Canonical Variate 6 (R = 0.6, P < 0.01)

LPN CV6 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.43** |
| EN\_up | **-0.23** |
| HW\_up | **-0.22** |
| EW\_up | 0.12 |

RESP CV6 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.19** |
| EN\_up | **0.18** |
| HW\_up | -0.04 |
| EW\_up | **-0.24** |

### Significant Correlation with Responsible\_Job

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52

Significant correlation between LPN and Responsible\_Job  
Canonical Variate 3 (R = -0.62, P < 0.01)

LPN CV3 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.29** |
| EN\_up | -0.2 |
| HW\_up | **-0.48** |
| EW\_up | **-0.24** |

DMN CV3 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.15 |
| EN\_up | 0.11 |
| HW\_up | **0.36** |
| EW\_up | -0.08 |

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Responsible\_Job  
Canonical Variate 2 (R = -0.57, P < 0.01)

LPN CV2 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.03 |
| EN\_up | **-0.4** |
| HW\_up | -0.11 |
| EW\_up | -0.13 |

RESP CV2 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.52** |
| EN\_up | 0.24 |
| HW\_up | **-0.34** |
| EW\_up | **0.48** |

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Responsible\_Job  
Canonical Variate 1 (R = 0.6, P < 0.01)

LPN CV1 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.25 |
| EN\_up | **0.76** |
| HW\_up | 0.14 |
| EW\_up | **0.54** |

DMN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.13 |
| EN\_up | **0.39** |
| HW\_up | 0.08 |
| EW\_up | **0.29** |

RESP CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.35** |
| EN\_up | **-0.56** |
| HW\_up | **0.52** |
| EW\_up | **-0.6** |

### Significant Correlation with Medications

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Medications  
Canonical Variate 5 (R = -0.55, P < 0.01)

LPN CV5 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.08 |
| EN\_up | -0.06 |
| HW\_up | **-0.55** |
| EW\_up | 0.26 |

RESP CV5 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.07 |
| EN\_up | **0.31** |
| HW\_up | **0.17** |
| EW\_up | 0.15 |

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Medications  
Canonical Variate 8 (R = 0.71, P < 0.01)

RESP CV8 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.07 |
| EN\_up | -0.12 |
| HW\_up | **-0.28** |
| EW\_up | **0.29** |

DMN CV8 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.29** |
| EN\_up | -0.17 |
| HW\_up | -0.25 |
| EW\_up | **0.56** |

LPN CV8 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.13 |
| EN\_up | -0.13 |
| HW\_up | 0.14 |
| EW\_up | **-0.78** |

### Significant Correlation with Head\_Injury

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Head\_Injury  
Canonical Variate 1 (R = -0.58, P < 0.01)

LPN CV1 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.25 |
| EN\_up | **0.76** |
| HW\_up | 0.14 |
| EW\_up | **0.54** |

DMN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.13 |
| EN\_up | **0.39** |
| HW\_up | 0.08 |
| EW\_up | **0.29** |

RESP CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.35** |
| EN\_up | **-0.56** |
| HW\_up | **0.52** |
| EW\_up | **-0.6** |

### Significant Correlation with Neurological\_Problems

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52

Significant correlation between DMN and Neurological\_Problems  
Canonical Variate 3 (R = 0.65, P < 0.01)

DMN CV3 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.15 |
| EN\_up | 0.11 |
| HW\_up | **0.36** |
| EW\_up | -0.08 |

LPN CV3 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.29** |
| EN\_up | -0.2 |
| HW\_up | **-0.48** |
| EW\_up | **-0.24** |

### Significant Correlation with Smoking

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Smoking  
Canonical Variate 5 (R = 0.55, P < 0.01)

LPN CV5 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.08 |
| EN\_up | -0.06 |
| HW\_up | **-0.55** |
| EW\_up | 0.26 |

RESP CV5 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.07 |
| EN\_up | **0.31** |
| HW\_up | **0.17** |
| EW\_up | 0.15 |

### Significant Correlation with Religious\_Groups

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52

Significant correlation between LPN and Religious\_Groups  
Canonical Variate 2 (R = -0.66, P < 0.01)

LPN CV2 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.19** |
| EN\_up | 0.14 |
| HW\_up | **-0.2** |
| EW\_up | **-0.38** |

DMN CV2 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.41** |
| EN\_up | 0.08 |
| HW\_up | **0.29** |
| EW\_up | **0.53** |

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Religious\_Groups  
Canonical Variate 8 (R = -0.68, P < 0.01)

LPN CV8 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.09 |
| EN\_up | 0.05 |
| HW\_up | 0.02 |
| EW\_up | **-0.57** |

RESP CV8 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.6** |
| EN\_up | **0.38** |
| HW\_up | **0.44** |
| EW\_up | **0.47** |

### Significant Correlation with AccEN

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52

Significant correlation between LPN and AccEN  
Canonical Variate 3 (R = -0.61, P < 0.01)

LPN CV3 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.29** |
| EN\_up | -0.2 |
| HW\_up | **-0.48** |
| EW\_up | **-0.24** |

DMN CV3 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.15 |
| EN\_up | 0.11 |
| HW\_up | **0.36** |
| EW\_up | -0.08 |

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and AccEN  
Canonical Variate 4 (R = -0.59, P < 0.01)

DMN CV4 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.13 |
| EN\_up | -0.01 |
| HW\_up | **0.25** |
| EW\_up | **0.35** |

RESP CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.51** |
| EN\_up | **0.68** |
| HW\_up | 0.28 |
| EW\_up | 0.1 |

### Significant Correlation with AccHN

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and AccHN  
Canonical Variate 7 (R = 0.57, P < 0.01)

LPN CV7 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.55** |
| EN\_up | -0.11 |
| HW\_up | **0.78** |
| EW\_up | 0.18 |

RESP CV7 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.09 |
| EN\_up | **-0.42** |
| HW\_up | -0.16 |
| EW\_up | **-0.57** |

### Significant Correlation with AccHW

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52

Significant correlation between DMN and AccHW  
Canonical Variate 7 (R = -0.56, P < 0.01)

DMN CV7 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.03 |
| EN\_up | -0.02 |
| HW\_up | **0.34** |
| EW\_up | 0.09 |

LPN CV7 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.23** |
| EN\_up | **0.17** |
| HW\_up | 0.08 |
| EW\_up | **0.28** |

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and AccHW  
Canonical Variate 4 (R = -0.58, P < 0.01)

DMN CV4 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.13 |
| EN\_up | -0.01 |
| HW\_up | **0.25** |
| EW\_up | **0.35** |

RESP CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.51** |
| EN\_up | **0.68** |
| HW\_up | 0.28 |
| EW\_up | 0.1 |

### Significant Correlation with YMRS\_6

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and YMRS\_6  
Canonical Variate 4 (R = -0.65, P < 0.01)

RESP CV4 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.04 |
| EN\_up | **-0.2** |
| HW\_up | 0.03 |
| EW\_up | **0.2** |

DMN CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.05 |
| EN\_up | **0.28** |
| HW\_up | -0.03 |
| EW\_up | -0.02 |

LPN CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.43** |
| EN\_up | 0.17 |
| HW\_up | -0.17 |
| EW\_up | 0.06 |

### Significant Correlation with HAMD\_10

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and HAMD\_10  
Canonical Variate 4 (R = -0.65, P < 0.01)

RESP CV4 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.04 |
| EN\_up | **-0.2** |
| HW\_up | 0.03 |
| EW\_up | **0.2** |

DMN CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.05 |
| EN\_up | **0.28** |
| HW\_up | -0.03 |
| EW\_up | -0.02 |

LPN CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.43** |
| EN\_up | 0.17 |
| HW\_up | -0.17 |
| EW\_up | 0.06 |

### Significant Correlation with HAMD\_14

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and HAMD\_14  
Canonical Variate 4 (R = -0.65, P < 0.01)

RESP CV4 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.04 |
| EN\_up | **-0.2** |
| HW\_up | 0.03 |
| EW\_up | **0.2** |

DMN CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.05 |
| EN\_up | **0.28** |
| HW\_up | -0.03 |
| EW\_up | -0.02 |

LPN CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.43** |
| EN\_up | 0.17 |
| HW\_up | -0.17 |
| EW\_up | 0.06 |

# Summary of Results for Bipolar Patients

## Summary for Each Behavioural Variable

Only variables with significant results are reported.

### For Handedness:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&RESP | DMN | 7 | -0.51 | HN\_up negative, HW\_up negative, EW\_up negative |

### For Sex:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN | DMN | 4 | -0.58 | HN\_up negative, EN\_up positive, HW\_up positive, EW\_up positive |
| DMN&LPN&RESP | DMN | 5 | -0.58 | HW\_up positive, EW\_up positive |

### For Times\_married:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| LPN&RESP | RESP | 7 | 0.56 | HN\_up negative, EN\_up negative, HW\_up negative, EW\_up negative |

### For Children:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&RESP | RESP | 2 | 0.54 | EN\_up positive, EW\_up positive |
| LPN&RESP | RESP | 2 | -0.51 | EN\_up negative, EW\_up negative |
| DMN&LPN&RESP | RESP | 1 | 0.6 | EN\_up positive, EW\_up positive |

### For Birth\_complications:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN&RESP | LPN | 3 | -0.52 | HW\_up negative, EW\_up positive |

### For Adopted:

|  |  |  |  |
| --- | --- | --- | --- |
| **PCA** | | | |
| **Network** | **PC #** | **R value** | **Conditions** |
| RESP | 2 | 0.52 | EN\_up negative, EW\_up negative |

No significant results with CCA.

### For Medications:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&RESP | DMN | 3 | -0.52 | HN\_up negative, HW\_up negative |

### For Hospitalized:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN&RESP | RESP | 7 | 0.53 | HN\_up negative |

### For Head\_Injury:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN | DMN | 2 | -0.52 | EN\_up positive |

### For Unconscious:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN | DMN | 2 | -0.57 | EN\_up positive |

### For Seizure\_Convulsion:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&RESP | DMN | 3 | -0.52 | HN\_up negative, HW\_up negative |

### For Neurological\_Problems:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&RESP | DMN | 7 | 0.51 | HN\_up negative, HW\_up negative, EW\_up negative |

### For Paralysis\_Arthritis\_BackPain:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN&RESP | RESP | 1 | -0.52 | EN\_up positive, EW\_up positive |

### For Smoking:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&RESP | DMN | 2 | -0.56 | HN\_up negative, EW\_up negative |
| DMN&LPN&RESP | DMN | 1 | -0.51 | HN\_up negative, EN\_up negative |

### For Spirituality\_Importance:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN&RESP | LPN | 8 | 0.57 | HN\_up positive, HW\_up positive, EW\_up positive |

### For EN\_RT:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&RESP | RESP | 5 | 0.51 | HN\_up negative, EN\_up positive, HW\_up negative |

### For EW\_RT:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| LPN&RESP | RESP | 5 | 0.58 | HN\_up negative, EN\_up positive, HW\_up negative |

### For HW\_RT:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| LPN&RESP | RESP | 5 | 0.54 | HN\_up negative, EN\_up positive, HW\_up negative |

### For AccHW:

No significant results with PCA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CCA** | | | | |
| **Network Group** | **Network** | **CV #** | **R value** | **Conditions** |
| DMN&LPN | DMN | 7 | 0.53 | EN\_up positive, HW\_up negative, EW\_up positive |

## Principal Component Analysis

|  |  |
| --- | --- |
| Network | RESP |
| PCA component | **2.0** |
| Correlated with | Demo |
| Condition | Adopted |
| R | **0.52** |
| p | 0.01 |
| HN\_up | -0.19 |
| EN\_up | **-0.97** |
| HW\_up | -0.25 |
| EW\_up | **-0.96** |
| HN\_down | -0.11 |
| EN\_down | 0.36 |
| HW\_down | -0.14 |
| EW\_down | 0.42 |

## Multiple-Set Canonical Correlation Analysis

### Significant Correlation with Handedness

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and Handedness  
Canonical Variate 7 (R = -0.51, P < 0.01)

DMN CV7 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.39** |
| EN\_up | -0.01 |
| HW\_up | **-0.41** |
| EW\_up | **-0.75** |

RESP CV7 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.31** |
| EN\_up | **-0.28** |
| HW\_up | 0.13 |
| EW\_up | -0.15 |

### Significant Correlation with Sex

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52

Significant correlation between DMN and Sex  
Canonical Variate 4 (R = -0.58, P < 0.01)

DMN CV4 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.43** |
| EN\_up | **0.43** |
| HW\_up | **0.31** |
| EW\_up | **0.43** |

LPN CV4 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.25** |
| EN\_up | **-0.37** |
| HW\_up | **-0.45** |
| EW\_up | **-0.35** |

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and Sex  
Canonical Variate 5 (R = -0.58, P < 0.01)

DMN CV5 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.16 |
| EN\_up | 0.13 |
| HW\_up | **0.41** |
| EW\_up | **0.37** |

LPN CV5 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.69** |
| EN\_up | -0.13 |
| HW\_up | 0.09 |
| EW\_up | **-0.36** |

RESP CV5 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.23** |
| EN\_up | **-0.21** |
| HW\_up | **-0.13** |
| EW\_up | **-0.16** |

### Significant Correlation with Times\_married

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Times\_married  
Canonical Variate 7 (R = 0.56, P < 0.01)

RESP CV7 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.26** |
| EN\_up | **-0.44** |
| HW\_up | **-0.26** |
| EW\_up | **-0.27** |

LPN CV7 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.42** |
| EN\_up | **0.28** |
| HW\_up | 0.04 |
| EW\_up | -0.08 |

### Significant Correlation with Children

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Children  
Canonical Variate 2 (R = 0.54, P < 0.01)

RESP CV2 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.14 |
| EN\_up | **0.4** |
| HW\_up | -0.19 |
| EW\_up | **0.6** |

DMN CV2 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.51** |
| EN\_up | -0.22 |
| HW\_up | 0.2 |
| EW\_up | **-0.38** |

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Children  
Canonical Variate 2 (R = -0.51, P < 0.01)

RESP CV2 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.04 |
| EN\_up | **-0.53** |
| HW\_up | 0.13 |
| EW\_up | **-0.68** |

LPN CV2 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.51** |
| EN\_up | **0.39** |
| HW\_up | **-0.34** |
| EW\_up | **0.31** |

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Children  
Canonical Variate 1 (R = 0.6, P < 0.01)

RESP CV1 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.37 |
| EN\_up | **0.65** |
| HW\_up | 0.2 |
| EW\_up | **0.85** |

DMN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.71** |
| EN\_up | **-0.46** |
| HW\_up | -0.16 |
| EW\_up | -0.22 |

LPN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.08 |
| EN\_up | **-0.46** |
| HW\_up | -0.08 |
| EW\_up | **-0.39** |

### Significant Correlation with Birth\_complications

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Birth\_complications  
Canonical Variate 3 (R = -0.52, P < 0.01)

LPN CV3 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.17 |
| EN\_up | -0.17 |
| HW\_up | **-0.25** |
| EW\_up | **0.37** |

DMN CV3 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.01 |
| EN\_up | **0.36** |
| HW\_up | 0.12 |
| EW\_up | **-0.54** |

RESP CV3 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.13** |
| EN\_up | **-0.09** |
| HW\_up | **0.18** |
| EW\_up | -0.04 |

### Significant Correlation with Medications

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and Medications  
Canonical Variate 3 (R = -0.52, P < 0.01)

DMN CV3 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.46** |
| EN\_up | -0.22 |
| HW\_up | **-0.45** |
| EW\_up | 0.03 |

RESP CV3 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.51** |
| EN\_up | **0.55** |
| HW\_up | **0.78** |
| EW\_up | **0.56** |

### Significant Correlation with Hospitalized

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Hospitalized  
Canonical Variate 7 (R = 0.53, P < 0.01)

RESP CV7 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.45** |
| EN\_up | 0.06 |
| HW\_up | -0.22 |
| EW\_up | -0.03 |

DMN CV7 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.46** |
| EN\_up | **-0.4** |
| HW\_up | -0.2 |
| EW\_up | 0.17 |

LPN CV7 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.15** |
| EN\_up | 0.04 |
| HW\_up | **0.14** |
| EW\_up | 0.01 |

### Significant Correlation with Head\_Injury

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52

Significant correlation between DMN and Head\_Injury  
Canonical Variate 2 (R = -0.52, P < 0.01)

DMN CV2 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.25 |
| EN\_up | **0.68** |
| HW\_up | 0.25 |
| EW\_up | -0.29 |

LPN CV2 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.27** |
| EN\_up | -0.18 |
| HW\_up | **-0.44** |
| EW\_up | **0.49** |

### Significant Correlation with Unconscious

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52

Significant correlation between DMN and Unconscious  
Canonical Variate 2 (R = -0.57, P < 0.01)

DMN CV2 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.25 |
| EN\_up | **0.68** |
| HW\_up | 0.25 |
| EW\_up | -0.29 |

LPN CV2 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.27** |
| EN\_up | -0.18 |
| HW\_up | **-0.44** |
| EW\_up | **0.49** |

### Significant Correlation with Seizure\_Convulsion

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and Seizure\_Convulsion  
Canonical Variate 3 (R = -0.52, P < 0.01)

DMN CV3 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.46** |
| EN\_up | -0.22 |
| HW\_up | **-0.45** |
| EW\_up | 0.03 |

RESP CV3 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.51** |
| EN\_up | **0.55** |
| HW\_up | **0.78** |
| EW\_up | **0.56** |

### Significant Correlation with Neurological\_Problems

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and Neurological\_Problems  
Canonical Variate 7 (R = 0.51, P < 0.01)

DMN CV7 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.39** |
| EN\_up | -0.01 |
| HW\_up | **-0.41** |
| EW\_up | **-0.75** |

RESP CV7 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.31** |
| EN\_up | **-0.28** |
| HW\_up | 0.13 |
| EW\_up | -0.15 |

### Significant Correlation with Paralysis\_Arthritis\_BackPain

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and Paralysis\_Arthritis\_BackPain  
Canonical Variate 1 (R = -0.52, P < 0.01)

RESP CV1 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.37 |
| EN\_up | **0.65** |
| HW\_up | 0.2 |
| EW\_up | **0.85** |

DMN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.71** |
| EN\_up | **-0.46** |
| HW\_up | -0.16 |
| EW\_up | -0.22 |

LPN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.08 |
| EN\_up | **-0.46** |
| HW\_up | -0.08 |
| EW\_up | **-0.39** |

### Significant Correlation with Smoking

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and Smoking  
Canonical Variate 2 (R = -0.56, P < 0.01)

DMN CV2 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.51** |
| EN\_up | -0.22 |
| HW\_up | 0.2 |
| EW\_up | **-0.38** |

RESP CV2 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.14 |
| EN\_up | **0.4** |
| HW\_up | -0.19 |
| EW\_up | **0.6** |

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between DMN and Smoking  
Canonical Variate 1 (R = -0.51, P < 0.01)

DMN CV1 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.71** |
| EN\_up | **-0.46** |
| HW\_up | -0.16 |
| EW\_up | -0.22 |

LPN CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.08 |
| EN\_up | **-0.46** |
| HW\_up | -0.08 |
| EW\_up | **-0.39** |

RESP CV1 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.37 |
| EN\_up | **0.65** |
| HW\_up | 0.2 |
| EW\_up | **0.85** |

### Significant Correlation with Spirituality\_Importance

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between LPN and Spirituality\_Importance  
Canonical Variate 8 (R = 0.57, P < 0.01)

LPN CV8 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **0.21** |
| EN\_up | 0.02 |
| HW\_up | **0.38** |
| EW\_up | **0.32** |

DMN CV8 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.13 |
| EN\_up | **-0.49** |
| HW\_up | **-0.46** |
| EW\_up | **-0.71** |

RESP CV8 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.33** |
| EN\_up | **-0.21** |
| HW\_up | **-0.29** |
| EW\_up | **-0.18** |

### Significant Correlation with EN\_RT

#### C1\_Neg\_91\_TDMN\_0.77 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and EN\_RT  
Canonical Variate 5 (R = 0.51, P < 0.01)

RESP CV5 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.27** |
| EN\_up | **0.36** |
| HW\_up | **-0.37** |
| EW\_up | 0.07 |

DMN CV5 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.18 |
| EN\_up | 0.08 |
| HW\_up | **0.56** |
| EW\_up | -0.03 |

### Significant Correlation with EW\_RT

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and EW\_RT  
Canonical Variate 5 (R = 0.58, P < 0.01)

RESP CV5 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.25** |
| EN\_up | **0.19** |
| HW\_up | **-0.25** |
| EW\_up | -0.08 |

LPN CV5 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.05 |
| EN\_up | **-0.24** |
| HW\_up | **0.27** |
| EW\_up | -0.09 |

### Significant Correlation with HW\_RT

#### C2\_Pos\_86\_LPN\_1.52 & C3\_Pos\_71\_1RESP\_1.14

Significant correlation between RESP and HW\_RT  
Canonical Variate 5 (R = 0.54, P < 0.01)

RESP CV5 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.25** |
| EN\_up | **0.19** |
| HW\_up | **-0.25** |
| EW\_up | -0.08 |

LPN CV5 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | 0.05 |
| EN\_up | **-0.24** |
| HW\_up | **0.27** |
| EW\_up | -0.09 |

### Significant Correlation with AccHW

#### C1\_Neg\_91\_TDMN\_0.77 & C2\_Pos\_86\_LPN\_1.52

Significant correlation between DMN and AccHW  
Canonical Variate 7 (R = 0.53, P < 0.01)

DMN CV7 Canonical Loadings

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | -0.12 |
| EN\_up | **0.29** |
| HW\_up | **-0.24** |
| EW\_up | **0.29** |

LPN CV7 Canonical Loadings - Not Significant

|  |  |
| --- | --- |
| Condition |  |
| HN\_up | **-0.46** |
| EN\_up | 0.22 |
| HW\_up | **-0.45** |
| EW\_up | -0.05 |