

Diet and Sleep: Condition vs. Diet and Sleep

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Background

This analysis seeks to understand the influence that alignment condition has on two categories of lifestyle outcomes: dietary intake and sleep measures.

Data

There are 8 subjects in this study. All subjects have complete records for all outcome measures of interest.

In assessing the influence that alignment condition has on dietary intake, each subject was measured at two timepoints: week 3 and week 6. As each subject underwent both alignment conditions (aligned and misaligned), each subject had four total records in that round of data collection.

In assessing the influence that alignment condition has on sleep, each subject was measured at six timepoints: weeks 1, 2, 3, 4, 5, and 6. As each subject underwent both alignment conditions (aligned and misaligned), each subject had twelve total records in that round of data collection.

Variables

The predictors in both arms of this analysis (diet outcomes and sleep outcomes) are the same – we are interested in one’s alignment condition (aligned/misaligned), the week of measurement, as well as the interaction of condition and week.

In investigating the influence that one’s alignment condition may have on their sleep, we are interested in the following outcome variables: food weight, energy, food weight (no beverages), energy (no beverages), energy density, protein, fat, carbohydrate, plant protein, animal protein, sugar, fiber, calcium, magnesium, potassium, sodium, zinc, vitamin C, vitamin B6, folate, vitamin B12, saturated fat, monounsaturated fat, polyunsaturated fat, unsaturated fat, vitamin D, fruits, vegetables, fruits and vegetables, eggs, nuts, dairy, and added sugar.

In investigating the influence that one’s alignment condition may have on their diet, we are interested in the following predictors: latency, efficiency, TIB, TST, WASO, number of awakenings, awakening length, movement index, SFI, and fragmentation index.

Methodology

For both portions of this analysis, linear mixed effect models, with random intercepts for each subject, will be constructed to regress each outcome variable in turn on the following predictors: condition, week, the interaction of condition and week.

In all models constructed, phase (coded as a factor variable, taking in values 1 and 2) will be included in the model if it is deemed to be significant. In addition, the diet portion of this study, energy (recorded as the variable “en” in the dataset) will be added as a predictor in all models, excluding the model in which energy itself is the outcome.

Results

Alignment and Diet

The following table presents the results of regressing sleep outcome variables on diet predictors:

```
## Model 1: food_wt_ttl vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    -145.3589   1806.7151   26.9999  -0.080   0.9365
## conditionMisaligned  1081.2811  1450.0340   20.2025   0.746   0.4644
## week            333.2726   214.8696   20.1272   1.551   0.1365
## en              0.9085     0.4614   25.7158   1.969   0.0598 .
## conditionMisaligned:week -352.5308   308.3264   20.3088  -1.143   0.2662
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 2: en vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)     2889.27    485.18    28.00   5.955 2.07e-06 ***
## conditionMisaligned -753.33    610.51    21.00  -1.234   0.231
## week            -100.01     91.01    21.00  -1.099   0.284
## conditionMisaligned:week  181.15    128.71    21.00   1.407   0.174
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 3: food_wt_f vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)     316.1968    279.4408   27.0000   1.132   0.268
## conditionMisaligned  54.3316    240.3566   20.8686   0.226   0.823
## week            15.9674     35.6394   20.7652   0.448   0.659
## en              0.4489     0.0723   26.9981   6.210 1.22e-06 ***
## conditionMisaligned:week -28.9737    51.0618   21.0149  -0.567   0.576
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 4: en_food vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)     38.05750    164.43779   26.99666   0.231   0.819
## conditionMisaligned  29.26808    137.83085   20.55140   0.212   0.834
## week            11.11593     20.43172   20.45779   0.544   0.592
## en              0.89139     0.04248   26.79884  20.985 <2e-16 ***
## conditionMisaligned:week -8.44194    29.29210   20.68386  -0.288   0.776
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 5: ed vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)     1.309e+00  2.476e-01  2.699e+01   5.289 1.4e-05 ***
## conditionMisaligned -9.187e-02  2.173e-01  2.105e+01  -0.423   0.6768
## week            -1.163e-02  3.223e-02  2.093e+01  -0.361   0.7219
## en              1.307e-04  6.395e-05  2.679e+01   2.044  0.0509 .
```

```

## conditionMisaligned:week 4.145e-02 4.616e-02 2.120e+01 0.898 0.3793
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 6: prot vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    -2.97092   20.53662  26.99674  -0.145    0.886
## conditionMisaligned  10.26079   16.94836  20.63513   0.605    0.552
## week            0.03097    2.51202  20.55015   0.012    0.990
## en              0.04913    0.00529  26.50795   9.287 8.05e-10 ***
## conditionMisaligned:week -4.52041    3.60264  20.75528  -1.255    0.224
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 7: fat vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)   -18.342608  12.306175  26.181391  -1.491    0.148
## conditionMisaligned  10.497363   8.826863  20.313573   1.189    0.248
## week           0.489366   1.307275  20.275075   0.374    0.712
## en             0.044080   0.002933  23.170050  15.030 1.93e-13 ***
## conditionMisaligned:week -2.266420   1.878333  20.367836  -1.207    0.241
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 8: cho vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    36.80167   33.23349  26.95363   1.107    0.278
## conditionMisaligned -34.15287  29.92834  20.59360  -1.141    0.267
## week           -2.06310    4.44007  20.46468  -0.465    0.647
## en             0.10909    0.00854  25.91971  12.774 1.09e-12 ***
## conditionMisaligned:week 10.42314    6.35318  20.77667   1.641    0.116
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 9: prot_plant vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    0.2022205  2.1721620  26.9909925   0.093    0.9265
## conditionMisaligned  0.0264864  1.9155445  21.0582678   0.014    0.9891
## week          -0.2732843  0.2841123  20.9451939  -0.962    0.3471
## en            0.0011493  0.0005607  26.7002732   2.050    0.0503 .
## conditionMisaligned:week 0.2415042  0.4067776  21.2184973   0.594    0.5590
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 10: prot_anl vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)   -0.3631120  2.7153402  26.9885509  -0.134    0.895
## conditionMisaligned -0.4918993  2.4006557  21.0767620  -0.205    0.840
## week          -0.3166339  0.3560744  20.9627698  -0.889    0.384

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## en                0.0041439  0.0007007 26.6403469   5.914 2.79e-06 ***
## conditionMisaligned:week -0.3544410  0.5097721 21.2383063  -0.695   0.494
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 11: sugar vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    -4.991890  30.227142 26.712550  -0.165   0.870
## conditionMisaligned  6.480510  28.522205 20.064525   0.227   0.823
## week           -2.793010   4.233943 19.910862  -0.660   0.517
## en              0.053694   0.007629 22.505525   7.038 4.06e-07 ***
## conditionMisaligned:week  0.736724   6.049646 20.283647   0.122   0.904
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 12: fiber vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    12.965991   7.024607 26.996480   1.846 0.075916 .
## conditionMisaligned -8.419111   5.840460 20.796756  -1.442 0.164329
## week           -1.316299   0.865709 20.709649  -1.520 0.143510
## en              0.007229   0.001812 26.671856   3.989 0.000463 ***
## conditionMisaligned:week  2.044686   1.241362 20.919924   1.647 0.114471
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 13: ca vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)   -157.69141  294.30165 26.40140  -0.536 0.596572
## conditionMisaligned  521.94981  296.33547 21.45858   1.761 0.092424 .
## week           138.48316   44.02491 21.31887   3.146 0.004820 **
## en              0.30154    0.07125 18.64066   4.232 0.000468 ***
## conditionMisaligned:week -130.95558  62.78073 21.65780  -2.086 0.048985 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 14: mg vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    26.83408   76.39799 26.99210   0.351   0.728
## conditionMisaligned  62.92406  67.26329 20.88379   0.935   0.360
## week           4.95803    9.97626 20.76914   0.497   0.624
## en              0.13212    0.01973 26.72631   6.697 3.63e-07 ***
## conditionMisaligned:week -12.74819  14.28416 21.04629  -0.892   0.382
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 15: k vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    442.9142  674.1310 26.9993   0.657   0.517
## conditionMisaligned -160.6904  584.9097 20.9936  -0.275   0.786

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## week                -90.7411    86.7372    20.8874   -1.046    0.307
## en                   1.3198     0.1743    26.9536    7.570 3.88e-08 ***
## conditionMisaligned:week 52.3482   124.2422   21.1439    0.421    0.678
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 16: na vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    235.0875   592.4075   26.1327   0.397    0.695
## conditionMisaligned -265.3264  637.2715   20.9182  -0.416    0.681
## week           114.4094    94.7494   20.7765   1.207    0.241
## en              1.4272     0.1347   13.5237  10.598 6.3e-08 ***
## conditionMisaligned:week  4.1939   134.8601   21.1214   0.031    0.975
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 17: zn vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)   -4.690089   4.400352  26.320145  -1.066    0.2962
## conditionMisaligned  8.118599  4.457176  21.101918   1.821    0.0827 .
## week           1.024820   0.662226  20.955791   1.548    0.1367
## en              0.005484   0.001060  17.730046   5.172 6.71e-05 ***
## conditionMisaligned:week -1.699924  0.944186  21.310580  -1.800    0.0860 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 18: vit_c vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    68.14717   75.96084  25.87994   0.897    0.3779
## conditionMisaligned -87.63364  63.29672  19.77785  -1.384    0.1816
## week           -7.10755    9.29858  19.46547  -0.764    0.4538
## en              0.05054    0.01888  24.50248   2.677    0.0131 *
## phase2         -44.09019   20.98033  20.26181  -2.102    0.0483 *
## conditionMisaligned:week 13.83931  13.32273  19.82462   1.039    0.3114
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 19: vit_b6 vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    1.2652449  0.9757179  26.9966376   1.297    0.20570
## conditionMisaligned -0.3709644  0.8048082  20.4045884  -0.461    0.64972
## week           -0.1238933  0.1192850  20.3177964  -1.039    0.31118
## en              0.0008420  0.0002513  26.4726384   3.351    0.00244 **
## conditionMisaligned:week 0.1094490  0.1710757  20.5273488   0.640    0.52940
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 20: folate vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)

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```

## (Intercept)          144.77324  148.86280  26.99899   0.973  0.33942
## conditionMisaligned    50.46348  126.80447  20.57762   0.398  0.69476
## week                   13.81517   18.80026  20.47591   0.735  0.47077
## en                     0.12137   0.03851  26.97790   3.152  0.00395 **
## conditionMisaligned:week  5.93000   26.94252  20.72164   0.220  0.82795
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 21: vit_b12 vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    -3.6989834   3.3238547  26.2126493  -1.113   0.2759
## conditionMisaligned  6.6879571   3.5858837  21.3597945   1.865   0.0760 .
## week            1.0717425   0.5331660  21.2261482   2.010   0.0573 .
## en              0.0017445   0.0007531  14.0138855   2.316   0.0362 *
## conditionMisaligned:week -1.3839367   0.7588137  21.5512118  -1.824   0.0821 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 22: sfa vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    -9.017942   8.079973  26.997083  -1.116   0.274
## conditionMisaligned  3.019436   6.798157  20.576993   0.444   0.662
## week            1.031615   1.007780  20.481699   1.024   0.318
## en              0.014151   0.002088  26.855331   6.777 2.89e-07 ***
## conditionMisaligned:week -0.945016   1.444683  20.711856  -0.654   0.520
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 23: mufa vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    -9.921425   5.024505  26.921177  -1.975   0.0587 .
## conditionMisaligned  5.727296   3.851769  20.344968   1.487   0.1524
## week            0.167536   0.570602  20.288879   0.294   0.7720
## en              0.016612   0.001254  24.517242  13.245 1.14e-12 ***
## conditionMisaligned:week -0.992252   0.819346  20.424120  -1.211   0.2397
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 24: pufa vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)     0.994227   5.978922  26.996265   0.166   0.869
## conditionMisaligned  1.910039   5.229688  20.542385   0.365   0.719
## week           -0.697549   0.775590  20.426619  -0.899   0.379
## en              0.009674   0.001545  26.840957   6.261 1.1e-06 ***
## conditionMisaligned:week -0.182429   1.110706  20.706541  -0.164   0.871
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 25: ufa vs. condition

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```

##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)      -7.121079   8.640665 26.984461  -0.824    0.417
## conditionMisaligned  7.166420   6.770500 20.567029   1.058    0.302
## week             -0.592531   1.003107 20.504419  -0.591    0.561
## en                0.025661   0.002183 25.162925  11.755 1.02e-11 ***
## conditionMisaligned:week -1.061440   1.439967 20.655412  -0.737    0.469
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 26: vit_d vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)      1.0977430   2.8369273 26.2663356   0.387    0.7019
## conditionMisaligned  1.9201812   3.1142769 21.4643409   0.617    0.5440
## week             0.3784378   0.4631342 21.3367531   0.817    0.4229
## en                0.0012338   0.0006294 13.2646389   1.960    0.0713 .
## conditionMisaligned:week -0.7427534   0.6588344 21.6472195  -1.127    0.2719
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 27: fruit vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)      1.0175041   0.9560293 26.8957897   1.064    0.29665
## conditionMisaligned -0.5718700   0.8789682 21.1862176  -0.651    0.52229
## week             -0.1848133   0.1304345 21.0579205  -1.417    0.17114
## en                0.0006931   0.0002440 25.0129407   2.840    0.00883 **
## conditionMisaligned:week 0.1261951   0.1865190 21.3683575   0.677    0.50593
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 28: veg vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)      1.2394404   1.0534047 26.9415940   1.177    0.250
## conditionMisaligned -0.9586819   0.9552231 21.1811215  -1.004    0.327
## week             -0.1474266   0.1417259 21.0578507  -1.040    0.310
## en                0.0004889   0.0002702 25.7363063   1.810    0.082 .
## conditionMisaligned:week 0.2376753   0.2027501 21.3559993   1.172    0.254
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 29: f_v vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)      2.3209027   1.5026234 26.9999900   1.545    0.13409
## conditionMisaligned -1.5472280   1.2954671 20.9468069  -1.194    0.24569
## week             -0.3344537   0.1920932 20.8431950  -1.741    0.09641 .
## en                0.0011599   0.0003887 26.9921297   2.984    0.00598 **
## conditionMisaligned:week 0.3678805   0.2752012 21.0935032   1.337    0.19554
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##

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```

## Model 30: egg vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)      0.9676089  0.7012390 26.9410446   1.380    0.179
## conditionMisaligned -0.8514027  0.6360097 21.1825058  -1.339    0.195
## week              -0.1087488  0.0943647 21.0591768  -1.152    0.262
## en                 0.0001816  0.0001798 25.7271098   1.010    0.322
## conditionMisaligned:week 0.1713328  0.1349952 21.3574673   1.269    0.218
##
##
## Model 31: nuts vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)     -0.8208287  1.2122503 26.8526232  -0.677    0.504
## conditionMisaligned  0.9622642  1.1265967 21.2706948   0.854    0.403
## week              0.0150683  0.1672040 21.1402292   0.090    0.929
## en                 0.0005191  0.0003081 24.3965366   1.685    0.105
## conditionMisaligned:week -0.0046043  0.2390202 21.4559816  -0.019    0.985
##
##
## Model 32: dairy vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)      0.4176301  0.7992659 26.4433069   0.523    0.6057
## conditionMisaligned  0.5480491  0.7984210 21.4419012   0.686    0.4998
## week              0.2247130  0.1186054 21.3020391   1.895    0.0718 .
## en                 0.0001868  0.0001947 19.2112202   0.960    0.3492
## conditionMisaligned:week -0.0967204  0.1691746 21.6412587  -0.572    0.5734
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 33: added_sugar vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)     -2.664836   6.027747 26.999865  -0.442 0.661942
## conditionMisaligned  4.780292   4.832029 20.452842   0.989 0.334080
## week              0.043926   0.716016 20.380000   0.061 0.951679
## en                 0.006293   0.001539 25.743067   4.090 0.000375 ***
## conditionMisaligned:week -0.381757   1.027466 20.555755  -0.372 0.714029
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```


Alignment and Sleep

The following table presents the results of regressing sleep outcome variables on the condition and week predictors:

```
## Model 1: latency vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)      3.1121      1.8515 43.8111   1.681  0.0999 .
## conditionMisaligned  3.1147      2.2375 82.6884   1.392  0.1676
## week              0.1739      0.4050 82.6595   0.429  0.6688
## conditionMisaligned:week -0.5719      0.5733 82.6595  -0.997  0.3214
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 2: efficiency vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)     90.4986      1.7206 17.9868  52.596 <2e-16 ***
## conditionMisaligned -2.0874      1.5966 83.0261  -1.307  0.195
## week              0.1366      0.2890 83.0165   0.473  0.638
## conditionMisaligned:week  0.3879      0.4091 83.0165   0.948  0.346
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 3: tib vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    480.1640     14.2520 16.3882  33.691 <2e-16 ***
## conditionMisaligned -0.6325     12.6659 83.0282  -0.050  0.960
## week           -1.6535      2.2925 83.0199  -0.721  0.473
## conditionMisaligned:week -0.3417      3.2450 83.0199  -0.105  0.916
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 4: tst vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    434.7404     17.3474 14.1680  25.061 3.88e-13 ***
## conditionMisaligned -10.8329     14.2414 83.0227  -0.761  0.449
## week           -0.6928      2.5776 83.0161  -0.269  0.789
## conditionMisaligned:week  1.5256      3.6486 83.0161   0.418  0.677
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 5: waso vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)     42.311      7.181 16.904   5.892 1.82e-05 ***
## conditionMisaligned  7.032      6.478 83.029   1.086  0.281
## week            -1.135      1.172 83.020  -0.968  0.336
## conditionMisaligned:week -1.295      1.660 83.020  -0.781  0.437
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
```

```

## Model 6: number_of_awakenings vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    14.10412    2.28437   9.72363   6.174 0.000118 ***
## conditionMisaligned -1.84260    1.23408  82.01002  -1.493 0.139248
## week           -0.11394    0.22149  82.00560  -0.514 0.608350
## phase2         -1.41170    0.56466  82.02672  -2.500 0.014409 *
## conditionMisaligned:week 0.02656    0.31352  82.00560   0.085 0.932684
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 7: awakening_length vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)     3.42550    0.62057  56.48567   5.520 8.86e-07 ***
## conditionMisaligned 1.28443    0.78574  82.89250   1.635  0.106
## week            -0.04362    0.14223  82.85530  -0.307  0.760
## conditionMisaligned:week -0.20362    0.20132  82.85530  -1.011  0.315
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 8: movement_index vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    12.64168    2.09602  11.47804   6.031 7.14e-05 ***
## conditionMisaligned -0.17678    1.47402  83.00875  -0.120  0.905
## week           -0.09335    0.26679  83.00437  -0.350  0.727
## conditionMisaligned:week -0.13120    0.37763  83.00437  -0.347  0.729
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 9: sfi vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    24.5852    3.1399  20.4995   7.830 1.37e-07 ***
## conditionMisaligned 1.1265    3.0703  83.0334   0.367  0.715
## week           -0.6022    0.5557  83.0221  -1.084  0.282
## conditionMisaligned:week -0.4223    0.7866  83.0221  -0.537  0.593
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Model 10: fragmentation_index vs. condition
##               Estimate Std. Error      df t value Pr(>|t|)
## (Intercept)    11.9435    1.5506  76.0529   7.703 4.06e-11 ***
## conditionMisaligned 1.3273    2.0803  83.1709   0.638  0.525
## week           -0.5088    0.3766  83.1150  -1.351  0.180
## conditionMisaligned:week -0.2911    0.5330  83.1150  -0.546  0.586
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

GitHub Repository

All code for this report can be found in this Github repository.