Diet and Sleep vs. Condition

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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 dietary intake, 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 this analysis, week is treated as a continuous variable.

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

Diet and Condition

The results of regressing diet outcome variables on condition, week, the interaction of condition and week, energy (if applicable), and phase (if determined to be a significant predictor) are as follows:

```
## 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_ani 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
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```
## week                       -0.3166339  0.3560744 20.9627698  -0.889    0.384
## 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
## 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|)
## (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
##                            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
##
```

```
##
## 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
```

Sleep and Condition

The results of regressing sleep outcome variables on condition, week, the interaction of condition and week, and phase (if determined to be a significant predictor) are as follows:

```
## 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.