lme_mods

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Packages & Setup

```
# install.packages(c("tidyverse", "purrr", "R.matlab", "readxl", "dplyr"))
library(readxl);
library(purrr)
library(tidyverse);
## -- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
## v dplyr 1.1.4 v readr 2.1.5
## v forcats 1.0.0 v stringr 1.5.1
## v ggplot2 3.5.0 v tibble 3.2.1
## v lubridate 1.9.3 v tidyr
                                  1.3.1
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag() masks stats::lag()
## i Use the conflicted package (<a href="http://conflicted.r-lib.org/">http://conflicted.r-lib.org/</a>) to force all conflicts to become error
library(tibble)
library(knitr);
library(gtsummary)
## #StandWithUkraine
library(kableExtra)
##
## Attaching package: 'kableExtra'
## The following object is masked from 'package:dplyr':
##
##
      group_rows
library(lme4)
## Loading required package: Matrix
## Attaching package: 'Matrix'
```

```
##
## The following objects are masked from 'package:tidyr':
##
## expand, pack, unpack
```

GTSUMMARY THEME

```
# my_theme <-
  list(
#
      "tbl_summary-str:default_con_type" = "continuous2",
#
      "tbl_summary-str:continuous_stat" = c(
#
        "\{median\} (\{p25\} - \{p75\})",
#
        "{mean} ({sd})",
        "{min} - {max}"
#
#
      ),
      "tbl_summary-str:categorical_stat" = "{n} / {N} ({p}%)",
#
#
      "style_number-arg:big.mark" = "",
#
      "tbl_summary-fn:percent_fun" = function(x) style_percent(x, digits = 3)
#
  )
# my_theme <-
# list()
\# \ gtsummary::set\_gtsummary\_theme(my\_theme)
gtsummary::set_gtsummary_theme(theme_gtsummary_journal("jama"))
## Setting theme 'JAMA'
## Setting theme 'JAMA'
# reset_gtsummary_theme()
```

load table

```
# excel_dir <-"M:/jsalminen/GitHub/par_EEGProcessing/src/_data/MIM_dataset/_studies/04162024_MIM_YA0AN89
excel_dir <-"M:/jsalminen/GitHub/par_EEGProcessing/src/_data/MIM_dataset/_studies/04232024_MIM_YA0AN89_
eegt <- read_excel(excel_dir,sheet="Sheet1")</pre>
```

get unique entries

```
clusters = unique(eegt$cluster_id);
subjects = unique(eegt$subj_char);
groups = unique(eegt$group_char);
kin_measures = c('mean_APexc_COV', 'mean_APexc_mean', 'mean_MLexc_COV', 'mean_MLexc_mean', 'mean_StepDur','reeg_measures = c('theta_avg_power', 'alpha_avg_power', 'beta_avg_power', 'beta_div_theta', 'theta_div_beta'
```

get speeds only

```
eegt <- filter_at(eegt,vars('cond_char'), any_vars(. %in% c('0.25','0.5','0.75','1.0')))
flat_speeds = unique(eegt$cond_char)
eegt$cond_char <- as.numeric(eegt$cond_char)
eegt$speed_cond_num <- as.numeric(eegt$cond_char)
eegt <- mutate(eegt,across(c('subj_char'), factor))</pre>
```

get terrains only (if applicable)

```
# eegt <- filter_at(eegt,vars('cond_char'), any_vars(. %in% c('flat','low','med','high')))
# eegt <- filter_at(eegt,vars('cond_char'), any_vars(. %in% c('high')))
# eegt$terr_ord_speed <- cut(eegt$speed_ms, 4, ordered = TRUE)</pre>
```

convert speeds to ordered & groups to factors

```
eegt <- mutate(eegt,across(c('group char'), factor))</pre>
eegt$speed_ord <- cut(eegt$cond_char, 4, ordered = TRUE)</pre>
eegt <- mutate(eegt,across(c('cond_char'), factor))</pre>
head(eegt)
## # A tibble: 6 x 139
     speed_ms subj_id subj_cl_ind subj_char comp_id design_id cond_id cond_char
##
##
        <dbl> <chr>
                         <dbl> <fct>
                                              <dbl> <chr>
                                                             <chr>
                                                                      <fct>
        0.87 1
                                                  3 2
                                                                      0.25
## 1
                                1 H1004
                                                              1
## 2
        0.91 2
                                2 H1007
                                                  3 2
                                                                      0.25
                                                              1
## 3
        0.67 3
                                3 H1009
                                                  4 2
                                                                      0.25
                                                             1
        0.78 4
                                                  4 2
                                4 H1010
                                                             1
                                                                      0.25
        1.2 5
                                                  5 2
## 5
                                5 H1011
                                                              1
                                                                      0.25
## 6
        0.7 6
                                6 H1012
                                                  8 2
                                                              1
                                                                      0.25
## # i 131 more variables: group_id <chr>, cluster_id <chr>, aperiodic_exp <dbl>,
       aperiodic_offset <dbl>, central_freq_1 <dbl>, central_freq_2 <dbl>,
## #
## #
      central_freq_3 <dbl>, power_1 <dbl>, power_2 <dbl>, power_3 <dbl>,
## #
      r_squared <dbl>, theta_avg_power <dbl>, alpha_avg_power <dbl>,
## #
      beta avg power <dbl>, theta 1 <dbl>, theta 2 <dbl>, theta 3 <dbl>,
## #
      theta_4 <dbl>, theta_5 <dbl>, theta_6 <dbl>, theta_7 <dbl>, theta_8 <dbl>,
## #
      'alpha_ 1' <dbl>, 'alpha_ 2' <dbl>, 'alpha_ 3' <dbl>, 'alpha_ 4' <dbl>, ...
eegt$group_speed_code = paste(eegt$group_char,eegt$cond_char,sep="_")
eegt <- eegt%>%
 mutate(beta_div_theta=beta_avg_power/theta_avg_power)
```

LME EEG ~ 1+kin+group+kin:group

mutate(theta_div_beta=theta_avg_power/beta_avg_power)

eegt <- eegt%>%

| Changes in | mean_APexc_COV | for Cluster: | 3 | | | |
|-----------------------------|-------------------|--------------|---------|-----------------------|---------|---------|
| | Beta D | iv Theta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -66 (-230 to 98) | 0.43 | 0.90 | 0.12 (-3.3 to 3.5) | 0.95 | 0.95 |
| mean_APexc_COV | 2.5 (-7.3 to 12) | 0.62 | 0.90 | 0.01 (-0.20 to 0.21) | 0.95 | 0.95 |
| group_char | | 0.75 | 0.90 | | 0.75 | 0.95 |
| H1000's | _ | | | _ | | |
| H2000's | 89 (-169 to 346) | | | 0.55 (-4.8 to 5.9) | | |
| H3000's | 71 (-149 to 292) | | | -1.3 (-5.8 to 3.3) | | |
| mean_APexc_COV * group_char | | 0.90 | 0.90 | | 0.64 | 0.95 |
| mean_APexc_COV * H2000's | -2.5 (-15 to 10) | | | -0.01 (-0.28 to 0.26) | | |
| mean_APexc_COV * H3000's | -2.6 (-14 to 8.6) | | | 0.08 (-0.16 to 0.31) | | |
| subj_char.sd(Intercept) | 34 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 206 (NA to NA) | | | 4.4 (NA to NA) | | |

| Changes in | mean_APexc_mean | for Cluster: | 3 | | | |
|------------------------------|-------------------------|--------------|---------|---------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 128 (-16 to 271) | 0.081 | 0.16 | 0.12 (-2.9 to 3.2) | 0.94 | 0.95 |
| mean_APexc_mean | -2,788 (-5,298 to -277) | 0.030 | 0.12 | 1.6 (-52 to 55) | 0.95 | 0.95 |
| group_char | | 0.39 | 0.39 | | 0.86 | 0.95 |
| H1000's | _ | | | _ | | |
| H2000's | -103 (-300 to 95) | | | -0.24 (-4.4 to 3.9) | | |
| H3000's | -125 (-308 to 57) | | | 0.72 (-3.1 to 4.6) | | |
| mean_APexc_mean * group_char | | 0.23 | 0.31 | | 0.93 | 0.95 |
| mean_APexc_mean * H2000's | 2,755 (-1,085 to 6,594) | | | 15 (-66 to 96) | | |
| mean_APexc_mean * H3000's | 2,780 (-816 to 6,376) | | | 2.3 (-74 to 78) | | |
| subj_char.sd(Intercept) | 26 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 206 (NA to NA) | | | 4.4 (NA to NA) | | |

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

 $[\]frac{1}{2}$ CI = Confidence Interval $\frac{1}{2}$ False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 3 | | | |
|-----------------------------|--------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -150 (-278 to -22) | 0.022 | 0.087 | 0.12 (-2.5 to 2.8) | 0.93 | 0.95 |
| mean_MLexc_COV | 8.7 (0.20 to 17) | 0.045 | 0.090 | 0.01 (-0.17 to 0.18) | 0.95 | 0.95 |
| group_char | | 0.25 | 0.34 | | 0.91 | 0.95 |
| H1000's | _ | | | _ | | |
| H2000's | 96 (-86 to 277) | | | 0.66 (-3.1 to 4.4) | | |
| H3000's | 155 (-30 to 339) | | | -0.11 (-4.0 to 3.7) | | |
| mean_MLexc_COV * group_char | | 0.36 | 0.36 | | 0.81 | 0.95 |
| mean_MLexc_COV * H2000's | -3.4 (-15 to 8.5) | | | -0.02 (-0.27 to 0.23) | | |
| mean_MLexc_COV * H3000's | -8.9 (-21 to 3.4) | | | 0.06 (-0.19 to 0.32) | | |
| subj_char.sd(Intercept) | 32 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 204 (NA to NA) | | | 4.4 (NA to NA) | | |

| Changes in | mean_MLexc_mean | for Cluster: | 3 | | | |
|------------------------------|-------------------------|--------------|---------|--------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 152 (30 to 274) | 0.015 | 0.030 | 0.21 (-2.4 to 2.8) | 0.88 | >0.99 |
| mean_MLexc_mean | -2,174 (-3,593 to -755) | 0.003 | 0.011 | 0.05 (-30 to 30) | >0.99 | >0.99 |
| group_char | | 0.18 | 0.18 | | 0.96 | >0.99 |
| H1000's | _ | | | _ | | |
| H2000's | -94 (-256 to 69) | | | 0.12 (-3.3 to 3.6) | | |
| H3000's | -149 (-307 to 9.0) | | | 0.46 (-2.9 to 3.8) | | |
| mean_MLexc_mean * group_char | | 0.050 | 0.067 | | 0.98 | >0.99 |
| mean_MLexc_mean * H2000's | 1,796 (23 to 3,569) | | | 2.9 (-35 to 41) | | |
| mean_MLexc_mean * H3000's | 2,162 (369 to 3,956) | | | 3.9 (-34 to 42) | | |
| subj_char.sd(Intercept) | 22 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 204 (NA to NA) | | | 4.4 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $[\]frac{1}{2}$ CI = Confidence Interval

² False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 3 | | | | |
|---------------------------|--------------------|----------------|---------|---------------------|----------------|---------|--|
| | Beta 1 | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 0.02 (-117 to 117) | >0.99 | >0.99 | 0.24 (-2.2 to 2.7) | 0.85 | >0.99 | |
| mean_StepDur | -28 (-148 to 92) | 0.65 | >0.99 | -0.03 (-2.6 to 2.5) | 0.98 | >0.99 | |
| group_char | | 0.67 | >0.99 | | 0.89 | >0.99 | |
| H1000's | _ | | | _ | | | |
| H2000's | 85 (-112 to 281) | | | 0.30 (-3.8 to 4.4) | | | |
| H3000's | 2.4 (-187 to 192) | | | 0.95 (-3.0 to 4.9) | | | |
| mean_StepDur * group_char | | 0.85 | >0.99 | | >0.99 | >0.99 | |
| mean_StepDur * H2000's | -53 (-287 to 181) | | | 0.12 (-4.8 to 5.1) | | | |
| mean_StepDur * H3000's | 27 (-214 to 268) | | | -0.24 (-5.3 to 4.8) | | | |
| subj_char.sd(Intercept) | 33 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 206 (NA to NA) | | | 4.4 (NA to NA) | | | |

| Changes in | mean_UDexc_COV | for Cluster: | 3 | | | |
|-----------------------------|---------------------|--------------|----------------|----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -21 (-119 to 76) | 0.67 | 0.93 | 0.19 (-1.8 to 2.2) | 0.85 | 0.99 |
| mean_UDexc_COV | -0.33 (-7.3 to 6.7) | 0.93 | 0.93 | 0.00 (-0.15 to 0.15) | 0.99 | 0.99 |
| group_char | | 0.40 | 0.93 | | 0.58 | 0.99 |
| H1000's | _ | | | _ | | |
| H2000's | 102 (-48 to 251) | | | 0.20 (-2.9 to 3.3) | | |
| H3000's | 25 (-128 to 177) | | | -1.4 (-4.6 to 1.7) | | |
| mean_UDexc_COV * group_char | | 0.70 | 0.93 | | 0.32 | 0.99 |
| mean_UDexc_COV * H2000's | -3.8 (-14 to 6.5) | | | 0.01 (-0.20 to 0.23) | | |
| mean_UDexc_COV * H3000's | 0.23 (-10 to 11) | | | 0.16 (-0.06 to 0.38) | | |
| subj_char.sd(Intercept) | 33 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 206 (NA to NA) | | | 4.4 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{-1}}$ CI = Confidence Interval $^{-2}$ False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 3 | | | |
|------------------------------|--------------------------|--------------|---------|--------------------|---------|---------|
| | Beta Di | v Theta | , | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -1.6 (-114 to 111) | 0.98 | 0.98 | 0.14 (-2.2 to 2.5) | 0.91 | 0.95 |
| mean_UDexc_mean | -1,008 (-5,440 to 3,424) | 0.66 | 0.98 | 2.8 (-91 to 97) | 0.95 | 0.95 |
| group_char | | 0.80 | 0.98 | | 0.63 | 0.95 |
| H1000's | _ | | | _ | | |
| H2000's | -46 (-208 to 116) | | | 0.00 (-3.4 to 3.4) | | |
| H3000's | 4.9 (-153 to 162) | | | 1.4 (-1.9 to 4.7) | | |
| mean_UDexc_mean * group_char | | 0.44 | 0.98 | | 0.82 | 0.95 |
| mean_UDexc_mean * H2000's | 3,946 (-2,338 to 10,231) | | | 16 (-116 to 149) | | |
| mean_UDexc_mean * H3000's | 953 (-5,165 to 7,072) | | | -25 (-154 to 104) | | |
| subj_char.sd(Intercept) | 36 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 205 (NA to NA) | | | 4.4 (NA to NA) | | |

| Changes in | mean_StanceDur | for Cluster: | 3 | | | |
|-----------------------------|-------------------|--------------|----------------|---------------------|---------|---------|
| | Beta | Div Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -8.9 (-107 to 89) | 0.86 | 0.86 | 0.22 (-1.8 to 2.3) | 0.83 | 0.99 |
| mean_StanceDur | -13 (-85 to 58) | 0.72 | 0.86 | -0.01 (-1.5 to 1.5) | 0.99 | 0.99 |
| group_char | | 0.59 | 0.86 | | 0.84 | 0.99 |
| H1000's | _ | | | _ | | |
| H2000's | 82 (-80 to 245) | | | 0.62 (-2.8 to 4.0) | | |
| H3000's | 11 (-148 to 171) | | | 0.97 (-2.4 to 4.3) | | |
| mean_StanceDur * group_char | | 0.84 | 0.86 | | 0.98 | 0.99 |
| mean_StanceDur * H2000's | -35 (-174 to 103) | | | -0.23 (-3.2 to 2.7) | | |
| mean_StanceDur * H3000's | 13 (-134 to 160) | | | -0.20 (-3.3 to 2.9) | | |
| subj_char.sd(Intercept) | 32 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 206 (NA to NA) | | | 4.4 (NA to NA) | | |

 $^{^{-1}}$ CI = Confidence Interval $^{-2}$ False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 3 | | | | |
|--------------------------------|--------------------|----------------|---------|---------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 0.06 (-117 to 117) | >0.99 | >0.99 | 0.24 (-2.2 to 2.7) | 0.85 | >0.99 | |
| mean_GaitCycleDur | -14 (-74 to 46) | 0.65 | >0.99 | -0.01 (-1.3 to 1.3) | 0.98 | >0.99 | |
| group_char | | 0.67 | >0.99 | | 0.89 | >0.99 | |
| H1000's | _ | | | _ | | | |
| H2000's | 84 (-112 to 281) | | | 0.29 (-3.8 to 4.4) | | | |
| H3000's | 2.4 (-187 to 192) | | | 0.97 (-3.0 to 4.9) | | | |
| mean_GaitCycleDur * group_char | | 0.85 | >0.99 | | >0.99 | >0.99 | |
| mean_GaitCycleDur * H2000's | -26 (-143 to 90) | | | 0.06 (-2.4 to 2.5) | | | |
| mean_GaitCycleDur * H3000's | 14 (-107 to 134) | | | -0.13 (-2.7 to 2.4) | | | |
| subj_char.sd(Intercept) | 33 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 206 (NA to NA) | | | 4.4 (NA to NA) | | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 3 | | | |
|--------------------------------------|-------------------------|--------------|---------|--------------------|---------|---------|
| | Beta Div T | heta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -53 (-146 to 39) | 0.26 | 0.70 | 0.16 (-1.8 to 2.1) | 0.88 | 0.97 |
| mean_PeakUpDownVel_mean | 119 (-235 to 473) | 0.51 | 0.70 | 0.24 (-7.3 to 7.8) | 0.95 | 0.97 |
| group_char | | 0.70 | 0.70 | | 0.73 | 0.97 |
| H1000's | _ | | | _ | | |
| H2000's | 20 (-116 to 157) | | | 0.64 (-2.2 to 3.5) | | |
| H3000's | 56 (-75 to 188) | | | 1.1 (-1.6 to 3.9) | | |
| mean_PeakUpDownVel_mean * group_char | | 0.65 | 0.70 | | 0.97 | 0.97 |
| mean_PeakUpDownVel_mean * H2000's | 100 (-394 to 593) | | | -0.99 (-11 to 9.5) | | |
| mean_PeakUpDownVel_mean * H3000's | -123 (-599 to 353) | | | -1.3 (-11 to 8.8) | | |
| subj_char.sd(Intercept) | 36 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 205 (NA to NA) | | | 4.4 (NA to NA) | | |

¹ CI = Confidence Interval

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{2}}$ False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 4 | | | |
|-----------------------------|--------------------|--------------|---------|-----------------------|---------|---------|
| | Beta D | iv Theta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 3.4 (-286 to 293) | 0.98 | 0.98 | -0.04 (-1.1 to 1.0) | 0.94 | 0.94 |
| mean_APexc_COV | 0.32 (-17 to 18) | 0.97 | 0.98 | 0.03 (-0.04 to 0.09) | 0.38 | 0.84 |
| group_char | | 0.47 | 0.98 | | 0.65 | 0.87 |
| H1000's | _ | | | _ | | |
| H2000's | -2.0 (-487 to 483) | | | -0.08 (-1.8 to 1.7) | | |
| H3000's | 219 (-174 to 612) | | | 0.57 (-0.84 to 2.0) | | |
| mean_APexc_COV * group_char | | 0.73 | 0.98 | | 0.42 | 0.84 |
| mean_APexc_COV * H2000's | -0.05 (-25 to 25) | | | -0.01 (-0.10 to 0.08) | | |
| mean_APexc_COV * H3000's | -6.6 (-27 to 14) | | | -0.04 (-0.12 to 0.03) | | |
| subj_char.sd(Intercept) | 15 (NA to NA) | | | 0.16 (NA to NA) | | |
| Residual.sdObservation | 353 (NA to NA) | | | 1.3 (NA to NA) | | |

| Changes in | mean_APexc_mean | for Cluster: | 4 | | | |
|------------------------------|-------------------------|--------------|---------|---------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 2.6 (-243 to 249) | 0.98 | 0.98 | 0.22 (-0.66 to 1.1) | 0.63 | 0.86 |
| mean_APexc_mean | 106 (-4,202 to 4,415) | 0.96 | 0.98 | 3.6 (-12 to 19) | 0.64 | 0.86 |
| group_char | | 0.79 | 0.98 | | 0.91 | 0.91 |
| H1000's | _ | | | _ | | |
| H2000's | 32 (-311 to 375) | | | 0.20 (-1.0 to 1.4) | | |
| H3000's | -77 (-403 to 249) | | | 0.25 (-0.91 to 1.4) | | |
| mean_APexc_mean * group_char | | 0.48 | 0.98 | | 0.61 | 0.86 |
| mean_APexc_mean * H2000's | -708 (-7,271 to 5,856) | | | -7.3 (-31 to 16) | | |
| mean_APexc_mean * H3000's | 3,333 (-3,253 to 9,920) | | | -12 (-35 to 12) | | |
| subj_char.sd(Intercept) | 45 (NA to NA) | | | 0.17 (NA to NA) | | |
| Residual.sdObservation | 350 (NA to NA) | | | 1.3 (NA to NA) | | |

 $[\]frac{1}{2}$ CI = Confidence Interval $\frac{1}{2}$ False discovery rate correction for multiple testing

 $[\]frac{1}{2}$ CI = Confidence Interval $\frac{1}{2}$ False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 4 | | | |
|-----------------------------|-------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 22 (-177 to 221) | 0.83 | 0.89 | -0.05 (-0.77 to 0.66) | 0.88 | 0.88 |
| mean_MLexc_COV | -0.92 (-14 to 12) | 0.89 | 0.89 | 0.03 (-0.01 to 0.08) | 0.17 | 0.65 |
| group_char | | 0.080 | 0.29 | | 0.48 | 0.65 |
| H1000's | _ | | | _ | | |
| H2000's | -46 (-354 to 261) | | | 0.53 (-0.57 to 1.6) | | |
| H3000's | 302 (-8.3 to 612) | | | -0.16 (-1.3 to 0.95) | | |
| mean_MLexc_COV * group_char | | 0.14 | 0.29 | | 0.41 | 0.65 |
| mean_MLexc_COV * H2000's | 3.2 (-17 to 24) | | | -0.05 (-0.12 to 0.03) | | |
| mean_MLexc_COV * H3000's | -18 (-38 to 2.9) | | | -0.01 (-0.08 to 0.07) | | |
| subj_char.sd(Intercept) | 11 (NA to NA) | | | 0.12 (NA to NA) | | |
| Residual.sdObservation | 351 (NA to NA) | | | 1.3 (NA to NA) | | |

| Changes in | mean_MLexc_mean | for Cluster: | 4 | | | |
|------------------------------|------------------------|--------------|---------|---------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -1.9 (-214 to 210) | 0.99 | 0.99 | 0.25 (-0.51 to 1.0) | 0.51 | 0.89 |
| mean_MLexc_mean | 129 (-2,369 to 2,626) | 0.92 | 0.99 | 2.0 (-7.0 to 11) | 0.66 | 0.89 |
| group_char | | 0.34 | 0.68 | | 0.94 | 0.94 |
| H1000's | _ | | | _ | | |
| H2000's | 35 (-259 to 330) | | | 0.06 (-1.0 to 1.1) | | |
| H3000's | -157 (-439 to 125) | | | 0.17 (-0.84 to 1.2) | | |
| mean_MLexc_mean * group_char | | 0.10 | 0.42 | | 0.66 | 0.89 |
| mean_MLexc_mean * H2000's | -412 (-3,642 to 2,817) | | | -2.7 (-14 to 9.0) | | |
| mean_MLexc_mean * H3000's | 2,531 (-688 to 5,749) | | | -5.3 (-17 to 6.2) | | |
| subj_char.sd(Intercept) | 58 (NA to NA) | | | 0.18 (NA to NA) | | |
| Residual.sdObservation | 345 (NA to NA) | | | 1.2 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{-1}}$ CI = Confidence Interval $^{-2}$ False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 4 | | | |
|---------------------------|--------------------|--------------|---------|-----------------------|---------|---------|
| | Beta l | Div Theta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 2.6 (-196 to 201) | 0.98 | 0.98 | 0.57 (-0.15 to 1.3) | 0.12 | 0.49 |
| mean_StepDur | 6.4 (-198 to 210) | 0.95 | 0.98 | -0.17 (-0.91 to 0.57) | 0.65 | 0.96 |
| group_char | | 0.037 | 0.073 | | 0.96 | 0.96 |
| H1000's | _ | | | _ | | |
| H2000's | 27 (-321 to 376) | | | -0.17 (-1.4 to 1.1) | | |
| H3000's | -405 (-741 to -69) | | | -0.12 (-1.3 to 1.1) | | |
| mean_StepDur * group_char | | 0.006 | 0.025 | | 0.94 | 0.96 |
| mean_StepDur * H2000's | -36 (-448 to 376) | | | -0.02 (-1.5 to 1.5) | | |
| mean_StepDur * H3000's | 675 (242 to 1,108) | | | -0.28 (-1.9 to 1.3) | | |
| subj_char.sd(Intercept) | 26 (NA to NA) | | | 0.14 (NA to NA) | | |
| Residual.sdObservation | 345 (NA to NA) | | | 1.3 (NA to NA) | | |

| Changes in | mean_UDexc_COV | for Cluster: | 4 | | | | |
|-----------------------------|-------------------|----------------|---------|-----------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 9.2 (-158 to 176) | 0.91 | >0.99 | 0.57 (-0.03 to 1.2) | 0.063 | 0.25 | |
| mean_UDexc_COV | -0.06 (-12 to 12) | >0.99 | >0.99 | -0.01 (-0.06 to 0.03) | 0.58 | 0.85 | |
| group_char | | 0.20 | 0.40 | | 0.85 | 0.85 | |
| H1000's | _ | | | _ | | | |
| H2000's | 8.1 (-246 to 263) | | | -0.26 (-1.2 to 0.66) | | | |
| H3000's | -221 (-491 to 48) | | | -0.07 (-1.0 to 0.90) | | | |
| mean_UDexc_COV * group_char | | 0.062 | 0.25 | | 0.84 | 0.85 | |
| mean_UDexc_COV * H2000's | -0.69 (-19 to 17) | | | 0.01 (-0.06 to 0.07) | | | |
| mean_UDexc_COV * H3000's | 20 (1.2 to 38) | | | -0.01 (-0.08 to 0.05) | | | |
| subj_char.sd(Intercept) | 40 (NA to NA) | | | 0.13 (NA to NA) | | | |
| Residual.sdObservation | 347 (NA to NA) | | | 1.3 (NA to NA) | | | |

CI = Confidence Interval
 False discovery rate correction for multiple testing

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 4 | | | |
|------------------------------|---------------------------|----------------|---------|----------------------|---------|---------|
| | Beta Div | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 2.7 (-198 to 203) | 0.98 | 0.98 | 0.38 (-0.34 to 1.1) | 0.30 | 0.71 |
| mean_UDexc_mean | 240 (-7,586 to 8,066) | 0.95 | 0.98 | 1.4 (-27 to 29) | 0.92 | 0.92 |
| group_char | | 0.086 | 0.32 | | 0.35 | 0.71 |
| H1000's | — | | | _ | | |
| H2000's | 6.5 (-291 to 304) | | | -0.70 (-1.8 to 0.37) | | |
| H3000's | 282 (0.57 to 563) | | | -0.61 (-1.6 to 0.39) | | |
| mean_UDexc_mean * group_char | | 0.16 | 0.32 | | 0.58 | 0.77 |
| mean_UDexc_mean * H2000's | -314 (-11,625 to 10,997) | | | 21 (-19 to 62) | | |
| mean_UDexc_mean * H3000's | -9,439 (-20,380 to 1,502) | | | 14 (-25 to 53) | | |
| subj_char.sd(Intercept) | 42 (NA to NA) | | | 0.09 (NA to NA) | | |
| Residual.sdObservation | 348 (NA to NA) | | | 1.3 (NA to NA) | | |

| Changes in | mean_StanceDur | for Cluster: | 4 | | | | | |
|-----------------------------|--------------------|----------------|---------|-----------------------|----------------|---------|--|--|
| | Beta | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | | |
| (Intercept) | 2.7 (-164 to 169) | 0.98 | 0.98 | 0.56 (-0.04 to 1.2) | 0.069 | 0.28 | | |
| mean_StanceDur | 4.6 (-117 to 126) | 0.94 | 0.98 | -0.12 (-0.56 to 0.32) | 0.61 | 0.92 | | |
| group_char | | 0.071 | 0.14 | | 0.90 | 0.92 | | |
| H1000's | _ | | | _ | | | | |
| H2000's | 17 (-270 to 303) | | | -0.23 (-1.3 to 0.81) | | | | |
| H3000's | -307 (-591 to -24) | | | -0.14 (-1.2 to 0.89) | | | | |
| mean_StanceDur * group_char | | 0.011 | 0.042 | | 0.92 | 0.92 | | |
| mean_StanceDur * H2000's | -16 (-259 to 227) | | | 0.04 (-0.84 to 0.92) | | | | |
| mean_StanceDur * H3000's | 393 (128 to 659) | | | -0.18 (-1.1 to 0.78) | | | | |
| subj_char.sd(Intercept) | 28 (NA to NA) | | | 0.14 (NA to NA) | | | | |
| Residual.sdObservation | 346 (NA to NA) | | | 1.3 (NA to NA) | | | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 4 | | | |
|--------------------------------|--------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 2.6 (-195 to 201) | 0.98 | 0.98 | 0.57 (-0.15 to 1.3) | 0.12 | 0.48 |
| mean_GaitCycleDur | 3.2 (-99 to 105) | 0.95 | 0.98 | -0.09 (-0.46 to 0.28) | 0.65 | 0.96 |
| group_char | | 0.036 | 0.072 | | 0.96 | 0.96 |
| H1000's | _ | | | _ | | |
| H2000's | 27 (-320 to 375) | | | -0.17 (-1.4 to 1.1) | | |
| H3000's | -406 (-742 to -70) | | | -0.12 (-1.3 to 1.1) | | |
| mean_GaitCycleDur * group_char | | 0.006 | 0.024 | | 0.94 | 0.96 |
| mean_GaitCycleDur * H2000's | -18 (-223 to 187) | | | -0.01 (-0.76 to 0.73) | | |
| mean_GaitCycleDur * H3000's | 338 (121 to 554) | | | -0.14 (-0.93 to 0.65) | | |
| subj_char.sd(Intercept) | 25 (NA to NA) | | | 0.14 (NA to NA) | | |
| Residual.sdObservation | 345 (NA to NA) | | | 1.3 (NA to NA) | | |
| | | | | | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 4 | | | | |
|--------------------------------------|-------------------------|--------------|---------|----------------------|---------|---------|--|
| | Beta Div T | heta | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 6.8 (-155 to 169) | 0.93 | 0.98 | 0.36 (-0.22 to 0.94) | 0.23 | 0.73 | |
| mean_PeakUpDownVel_mean | 7.0 (-608 to 622) | 0.98 | 0.98 | 0.25 (-2.0 to 2.5) | 0.83 | 0.83 | |
| group_char | | 0.083 | 0.33 | | 0.37 | 0.73 | |
| H1000's | _ | | | _ | | | |
| H2000's | -13 (-259 to 234) | | | -0.54 (-1.4 to 0.34) | | | |
| H3000's | 230 (-3.0 to 462) | | | -0.52 (-1.4 to 0.31) | | | |
| mean_PeakUpDownVel_mean * group_char | | 0.18 | 0.36 | | 0.67 | 0.83 | |
| mean_PeakUpDownVel_mean * H2000's | 43 (-847 to 934) | | | 1.4 (-1.8 to 4.6) | | | |
| mean_PeakUpDownVel_mean * H3000's | -670 (-1,514 to 174) | | | 0.94 (-2.1 to 4.0) | | | |
| subj_char.sd(Intercept) | 32 (NA to NA) | | | 0.09 (NA to NA) | | | |
| Residual.sd Observation | 350 (NA to NA) | | | 1.3 (NA to NA) | | | |

 $^{^{1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 5 | | | | | |
|-----------------------------|---------------------------|----------------|---------|----------------------|---------|----------------|--|--|
| | Beta Div | Beta Div Theta | | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | | |
| (Intercept) | 1.7 (-459 to 462) | >0.99 | >0.99 | 0.12 (-14 to 14) | 0.99 | 0.99 | | |
| mean_APexc_COV | -0.11 (-27 to 27) | >0.99 | >0.99 | 0.02 (-0.82 to 0.86) | 0.96 | 0.99 | | |
| group_char | | < 0.001 | < 0.001 | | 0.79 | 0.99 | | |
| H1000's | _ | | | _ | | | | |
| H2000's | -4,333 (-5,151 to -3,516) | | | 4.8 (-19 to 29) | | | | |
| H3000's | 1.0 (-721 to 723) | | | 7.1 (-13 to 27) | | | | |
| mean_APexc_COV * group_char | | < 0.001 | < 0.001 | | 0.89 | 0.99 | | |
| mean_APexc_COV * H2000's | 211 (172 to 250) | | | -0.29 (-1.5 to 0.91) | | | | |
| mean_APexc_COV * H3000's | -0.04 (-33 to 33) | | | -0.16 (-1.2 to 0.84) | | | | |
| subj_char.sd(Intercept) | 368 (NA to NA) | | | 3.5 (NA to NA) | | | | |
| Residual.sdObservation | 390 (NA to NA) | | | 14 (NA to NA) | | | | |

| Changes in | mean_APexc_mean | for Cluster: | 5 | | | |
|------------------------------|--------------------------|--------------|---------|--------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -12 (-485 to 461) | 0.96 | >0.99 | -0.22 (-11 to 10) | 0.97 | 0.97 |
| mean_APexc_mean | 223 (-8,190 to 8,637) | 0.96 | >0.99 | 12 (-175 to 200) | 0.90 | 0.97 |
| group_char | | 0.82 | >0.99 | | 0.025 | 0.10 |
| H1000's | _ | | | _ | | |
| H2000's | 254 (-577 to 1,085) | | | -17 (-36 to 1.8) | | |
| H3000's | 18 (-633 to 668) | | | 9.1 (-5.9 to 24) | | |
| mean_APexc_mean * group_char | | >0.99 | >0.99 | | 0.057 | 0.11 |
| mean_APexc_mean * H2000's | 94 (-15,874 to 16,063) | | | 328 (-30 to 687) | | |
| mean_APexc_mean * H3000's | -399 (-14,034 to 13,236) | | | -152 (-466 to 162) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 4.1 (NA to NA) | | |
| Residual.sdObservation | 639 (NA to NA) | | | 14 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 5 | | | |
|-----------------------------|-------------------------|--------------|---------|----------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 4.5 (-343 to 352) | 0.98 | 0.98 | -0.55 (-9.2 to 8.1) | 0.90 | 0.90 |
| mean_MLexc_COV | -0.30 (-22 to 22) | 0.98 | 0.98 | 0.07 (-0.47 to 0.61) | 0.81 | 0.90 |
| group_char | | 0.014 | 0.028 | | 0.38 | 0.76 |
| H1000's | _ | | | _ | | |
| H2000's | -1,170 (-1,973 to -366) | | | 11 (-8.5 to 31) | | |
| H3000's | -1.0 (-681 to 679) | | | -4.7 (-21 to 12) | | |
| mean_MLexc_COV * group_char | | < 0.001 | 0.003 | | 0.18 | 0.71 |
| mean_MLexc_COV * H2000's | 102 (48 to 157) | | | -0.89 (-2.2 to 0.42) | | |
| mean_MLexc_COV * H3000's | -0.02 (-45 to 45) | | | 0.55 (-0.54 to 1.6) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 3.7 (NA to NA) | | |
| Residual.sdObservation | 612 (NA to NA) | | | 14 (NA to NA) | | |

| Changes in | mean_MLexc_mean | for Cluster: | 5 | | | |
|------------------------------|---------------------------|----------------|---------|---------------------|---------|---------|
| | Beta Div | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -16 (-407 to 374) | 0.93 | 0.93 | 0.48 (-8.6 to 9.6) | 0.92 | >0.99 |
| mean_MLexc_mean | 207 (-4,438 to 4,851) | 0.93 | 0.93 | -0.31 (-107 to 107) | >0.99 | >0.99 |
| group_char | | 0.32 | 0.93 | | 0.019 | 0.077 |
| H1000's | _ | | | _ | | |
| H2000's | 505 (-201 to 1,210) | | | -16 (-33 to -0.03) | | |
| H3000's | 16 (-536 to 567) | | | 7.1 (-5.9 to 20) | | |
| mean_MLexc_mean * group_char | | 0.74 | 0.93 | | 0.040 | 0.081 |
| mean_MLexc_mean * H2000's | -2,758 (-10,355 to 4,840) | | | 163 (-8.2 to 335) | | |
| mean_MLexc_mean * H3000's | -215 (-6,420 to 5,990) | | | -48 (-191 to 96) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 4.7 (NA to NA) | | |
| Residual.sdObservation | 638 (NA to NA) | | | 14 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 5 | | | | |
|---------------------------|----------------------|----------------|---------|---------------------|----------------|---------|--|
| | Beta I | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -6.4 (-396 to 383) | 0.97 | 0.97 | -0.07 (-8.7 to 8.6) | 0.99 | 0.99 | |
| mean_StepDur | 7.1 (-402 to 416) | 0.97 | 0.97 | 0.59 (-8.3 to 9.5) | 0.90 | 0.99 | |
| group_char | | 0.23 | 0.93 | | 0.014 | 0.050 | |
| H1000's | _ | | | _ | | | |
| H2000's | 749 (-132 to 1,630) | | | -24 (-44 to -4.5) | | | |
| H3000's | 14 (-716 to 745) | | | 8.9 (-7.7 to 26) | | | |
| mean_StepDur * group_char | | 0.50 | 0.97 | | 0.025 | 0.050 | |
| mean_StepDur * H2000's | -627 (-1,678 to 424) | | | 29 (5.9 to 52) | | | |
| mean_StepDur * H3000's | -21 (-1,006 to 964) | | | -8.6 (-31 to 14) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 4.2 (NA to NA) | | | |
| Residual.sdObservation | 636 (NA to NA) | | | 14 (NA to NA) | | | |
| | | | | | | | |

| Changes in | mean_UDexc_COV | for Cluster: | 5 | | | |
|-----------------------------|--------------------|--------------|----------------|----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -5.7 (-324 to 313) | 0.97 | 0.97 | -0.36 (-7.7 to 7.0) | 0.92 | 0.92 |
| mean_UDexc_COV | 0.44 (-22 to 23) | 0.97 | 0.97 | 0.06 (-0.45 to 0.58) | 0.81 | 0.92 |
| group_char | | 0.81 | 0.97 | | 0.13 | 0.52 |
| H1000's | _ | | | _ | | |
| H2000's | -195 (-810 to 421) | | | -9.3 (-24 to 4.9) | | |
| H3000's | 8.1 (-579 to 595) | | | 7.7 (-5.8 to 21) | | |
| mean_UDexc_COV * group_char | | 0.26 | 0.97 | | 0.26 | 0.52 |
| mean_UDexc_COV * H2000's | 32 (-8.8 to 74) | | | 0.56 (-0.38 to 1.5) | | |
| mean_UDexc_COV * H3000's | -0.69 (-40 to 39) | | | -0.33 (-1.2 to 0.56) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 3.5 (NA to NA) | | |
| Residual.sdObservation | 633 (NA to NA) | | | 14 (NA to NA) | | |

 $^{^{1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 5 | | | | |
|------------------------------|----------------------------|----------------|---------|----------------------|----------------|---------|--|
| | Beta Div | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 7.6 (-362 to 377) | 0.97 | 0.97 | 0.60 (-7.8 to 9.0) | 0.89 | 0.97 | |
| mean_UDexc_mean | -316 (-14,912 to 14,279) | 0.97 | 0.97 | -6.0 (-333 to 321) | 0.97 | 0.97 | |
| group_char | | 0.062 | 0.25 | | 0.14 | 0.27 | |
| H1000's | — | | | _ | | | |
| H2000's | 846 (100 to 1,593) | | | 16 (-0.82 to 33) | | | |
| H3000's | -11 (-580 to 558) | | | -0.57 (-14 to 12) | | | |
| mean_UDexc_mean * group_char | | 0.22 | 0.43 | | 0.035 | 0.14 | |
| mean_UDexc_mean * H2000's | -24,211 (-53,231 to 4,808) | | | -727 (-1,380 to -73) | | | |
| mean_UDexc_mean * H3000's | 411 (-21,507 to 22,329) | | | 149 (-346 to 644) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 3.7 (NA to NA) | | | |
| Residual.sdObservation | 633 (NA to NA) | | | 14 (NA to NA) | | | |

| Changes in | mean_StanceDur | for Cluster: | 5 | | | | |
|-----------------------------|---------------------|----------------|---------|--------------------|----------------|---------|--|
| | Beta I | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -4.6 (-333 to 324) | 0.98 | 0.98 | 0.03 (-7.3 to 7.3) | >0.99 | >0.99 | |
| mean_StanceDur | 3.8 (-244 to 251) | 0.98 | 0.98 | 0.35 (-5.0 to 5.7) | 0.90 | >0.99 | |
| group_char | | 0.26 | 0.98 | | 0.012 | 0.044 | |
| H1000's | _ | | | _ | | | |
| H2000's | 579 (-127 to 1,285) | | | -19 (-35 to -3.4) | | | |
| H3000's | 10 (-600 to 621) | | | 8.0 (-5.8 to 22) | | | |
| mean_StanceDur * group_char | | 0.61 | 0.98 | | 0.022 | 0.044 | |
| mean_StanceDur * H2000's | -299 (-896 to 299) | | | 16 (3.5 to 29) | | | |
| mean_StanceDur * H3000's | -12 (-602 to 579) | | | -5.3 (-18 to 7.9) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 4.2 (NA to NA) | | | |
| Residual.sdObservation | 637 (NA to NA) | | | 14 (NA to NA) | | | |

 $^{^{-1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

 $^{^{1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

| mean_GaitCycleDur | for Cluster: | 5 | | | | |
|---------------------|---|--|--|--|--|--|
| Beta D | Beta Div Theta | | | Theta div Beta | | |
| Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| -6.4 (-396 to 383) | 0.97 | 0.97 | -0.08 (-8.7 to 8.6) | 0.99 | 0.99 | |
| 3.6 (-201 to 208) | 0.97 | 0.97 | 0.30 (-4.2 to 4.7) | 0.90 | 0.99 | |
| | 0.24 | 0.95 | | 0.014 | 0.050 | |
| _ | | | _ | | | |
| 743 (-137 to 1,623) | | | -24 (-43 to -4.4) | | | |
| 14 (-716 to 745) | | | 8.9 (-7.7 to 26) | | | |
| | 0.51 | 0.97 | | 0.025 | 0.050 | |
| -309 (-834 to 215) | | | 14 (2.9 to 26) | | | |
| -11 (-503 to 482) | | | -4.3 (-15 to 6.8) | | | |
| 0.00 (NA to NA) | | | 4.2 (NA to NA) | | | |
| 636 (NA to NA) | | | 14 (NA to NA) | | | |
| | Beta D Beta (95% CI) -6.4 (-396 to 383) 3.6 (-201 to 208) 743 (-137 to 1,623) 14 (-716 to 745) -309 (-834 to 215) -11 (-503 to 482) 0.00 (NA to NA) | Beta Div Theta Beta (95% CI) p-value -6.4 (-396 to 383) 0.97 3.6 (-201 to 208) 0.97 | Beta Div Theta Beta (95% CI) p-value q-value -6.4 (-396 to 383) 0.97 0.97 3.6 (-201 to 208) 0.97 0.97 | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $ \begin{array}{ c c c c c c c } \hline \textbf{Beta Div Theta} \\ \hline \textbf{Beta (95\% CI)} & \textbf{p-value} \\ \hline \textbf{-}6.4 (-396 \text{ to } 383) & 0.97 & 0.97 & -0.08 (-8.7 \text{ to } 8.6) & 0.99 \\ \hline \textbf{-}3.6 (-201 \text{ to } 208) & 0.97 & 0.97 & 0.30 (-4.2 \text{ to } 4.7) & 0.90 \\ \hline \textbf{-}0.24 & 0.95 & 0.30 (-4.2 \text{ to } 4.7) & 0.90 \\ \hline \textbf{-}0.24 & 0.95 & 0.014 \\ \hline \textbf{-}0.51 & 0.97 & 0.97 & 0.25 \\ \hline \textbf{-}309 (-834 \text{ to } 215) & 14 (2.9 \text{ to } 26) \\ \hline \textbf{-}11 (-503 \text{ to } 482) & -4.3 (-15 \text{ to } 6.8) \\ \hline \textbf{-}0.00 (\text{NA to NA}) & 4.2 (\text{NA to NA}) \\ \hline \hline \end{array} $ | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 5 | | | |
|--------------------------------------|--------------------------|--------------|---------|--------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 8.3 (-297 to 313) | 0.96 | 0.96 | 0.73 (-6.1 to 7.6) | 0.84 | 0.93 |
| mean_PeakUpDownVel_mean | -35 (-1,205 to 1,135) | 0.95 | 0.96 | -1.2 (-27 to 25) | 0.93 | 0.93 |
| group_char | | 0.18 | 0.74 | | 0.18 | 0.35 |
| H1000's | _ | | | _ | | |
| H2000's | 553 (-70 to 1,177) | | | 13 (-0.87 to 27) | | |
| H3000's | -12 (-510 to 486) | | | 1.5 (-9.8 to 13) | | |
| mean_PeakUpDownVel_mean * group_char | | 0.55 | 0.96 | | 0.042 | 0.17 |
| mean_PeakUpDownVel_mean * H2000's | -1,162 (-3,440 to 1,115) | | | -57 (-108 to -7.3) | | |
| mean_PeakUpDownVel_mean * H3000's | 45 (-1,689 to 1,778) | | | 5.7 (-33 to 44) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 3.6 (NA to NA) | | |
| Residual.sdObservation | 636 (NA to NA) | | | 14 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 6 | | | |
|-----------------------------|-----------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -0.68 (-9.6 to 8.2) | 0.88 | 0.88 | 7.2 (-0.74 to 15) | 0.075 | 0.30 |
| mean_APexc_COV | 0.16 (-0.38 to 0.70) | 0.56 | 0.74 | -0.17 (-0.65 to 0.30) | 0.47 | 0.63 |
| group_char | | 0.083 | 0.33 | | 0.45 | 0.63 |
| H1000's | _ | | | _ | | |
| H2000's | -8.2 (-22 to 5.5) | | | -7.2 (-20 to 5.1) | | |
| H3000's | 7.7 (-5.2 to 21) | | | -6.0 (-18 to 5.8) | | |
| mean_APexc_COV * group_char | | 0.20 | 0.40 | | 0.74 | 0.74 |
| mean_APexc_COV * H2000's | 0.17 (-0.53 to 0.86) | | | 0.25 (-0.37 to 0.86) | | |
| mean_APexc_COV * H3000's | -0.34 (-0.98 to 0.31) | | | 0.15 (-0.43 to 0.73) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 3.6 (NA to NA) | | |
| Residual.sdObservation | 11 (NA to NA) | | | 8.6 (NA to NA) | | |

| Changes in | mean_APexc_mean | for Cluster: | 6 | | | |
|------------------------------|-------------------|--------------|---------|-------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 1.8 (-5.8 to 9.5) | 0.64 | 0.98 | 3.3 (-3.3 to 9.9) | 0.32 | 0.96 |
| mean_APexc_mean | 2.0 (-134 to 138) | 0.98 | 0.98 | 20 (-96 to 136) | 0.73 | 0.96 |
| group_char | | 0.75 | 0.98 | | 0.86 | 0.96 |
| H1000's | _ | | | _ | | |
| H2000's | -1.4 (-12 to 9.5) | | | -1.8 (-11 to 7.8) | | |
| H3000's | 2.3 (-7.5 to 12) | | | -2.4 (-11 to 6.3) | | |
| mean_APexc_mean * group_char | | 0.89 | 0.98 | | 0.96 | 0.96 |
| mean_APexc_mean * H2000's | -43 (-255 to 168) | | | -17 (-200 to 167) | | |
| mean_APexc_mean * H3000's | -40 (-237 to 156) | | | -26 (-198 to 147) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 3.5 (NA to NA) | | |
| Residual.sdObservation | 11 (NA to NA) | | | 8.6 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 6 | | | |
|-----------------------------|-----------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 3.9 (-2.1 to 10) | 0.20 | 0.27 | 3.5 (-2.3 to 9.3) | 0.24 | 0.60 |
| mean_MLexc_COV | -0.14 (-0.53 to 0.25) | 0.48 | 0.48 | 0.06 (-0.31 to 0.44) | 0.75 | 0.75 |
| group_char | | < 0.001 | 0.004 | | 0.33 | 0.60 |
| H1000's | _ | | | _ | | |
| H2000's | -14 (-23 to -4.2) | | | -6.7 (-16 to 2.2) | | |
| H3000's | 5.6 (-4.3 to 15) | | | -2.2 (-11 to 6.9) | | |
| mean_MLexc_COV * group_char | | 0.009 | 0.017 | | 0.45 | 0.60 |
| mean_MLexc_COV * H2000's | 0.73 (0.10 to 1.4) | | | 0.28 (-0.29 to 0.86) | | |
| mean_MLexc_COV * H3000's | -0.35 (-1.0 to 0.31) | | | -0.11 (-0.71 to 0.49) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 3.4 (NA to NA) | | |
| Residual.sdObservation | 10 (NA to NA) | | | 8.6 (NA to NA) | | |

| Changes in | mean_MLexc_mean | for Cluster: | 6 | | | |
|------------------------------|--------------------|----------------|---------|-------------------|---------|---------|
| | Beta D | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 0.39 (-5.9 to 6.7) | 0.90 | 0.92 | 5.3 (-0.38 to 11) | 0.067 | 0.27 |
| mean_MLexc_mean | 19 (-55 to 92) | 0.62 | 0.92 | -11 (-76 to 53) | 0.73 | 0.97 |
| group_char | | 0.92 | 0.92 | | 0.52 | 0.97 |
| H1000's | _ | | | _ | | |
| H2000's | 1.2 (-7.8 to 10) | | | -3.7 (-12 to 4.5) | | |
| H3000's | 1.7 (-6.8 to 10) | | | -4.3 (-12 to 3.5) | | |
| mean_MLexc_mean * group_char | | 0.54 | 0.92 | | 0.97 | 0.97 |
| mean_MLexc_mean * H2000's | -52 (-151 to 46) | | | 12 (-74 to 98) | | |
| mean_MLexc_mean * H3000's | -13 (-108 to 83) | | | 7.1 (-78 to 92) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 3.6 (NA to NA) | | |
| Residual.sdObservation | 11 (NA to NA) | | | 8.6 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 6 | | | |
|---------------------------|--------------------|--------------|---------|--------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 1.2 (-7.3 to 9.7) | 0.78 | 0.86 | 7.5 (2.2 to 13) | 0.006 | 0.022 |
| mean_StepDur | 0.81 (-7.9 to 9.5) | 0.86 | 0.86 | -3.4 (-8.6 to 1.9) | 0.21 | 0.42 |
| group_char | | 0.32 | 0.64 | | 0.32 | 0.43 |
| H1000's | _ | | | _ | | |
| H2000's | 6.6 (-9.0 to 22) | | | -5.2 (-15 to 4.6) | | |
| H3000's | -7.0 (-22 to 7.6) | | | -6.4 (-16 to 2.9) | | |
| mean_StepDur * group_char | | 0.073 | 0.29 | | 0.84 | 0.84 |
| mean_StepDur * H2000's | -13 (-32 to 5.8) | | | 2.6 (-9.0 to 14) | | |
| mean_StepDur * H3000's | 15 (-4.3 to 34) | | | 2.8 (-9.1 to 15) | | |
| subj_char.sd(Intercept) | 3.0 (NA to NA) | | | 3.6 (NA to NA) | | |
| Residual.sdObservation | 14 (NA to NA) | | | 8.5 (NA to NA) | | |

| Changes in | mean_UDexc_COV | for Cluster: | 6 | | | | |
|-----------------------------|-----------------------|----------------|---------|-----------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 0.62 (-5.0 to 6.2) | 0.83 | 0.95 | 6.3 (1.5 to 11) | 0.011 | 0.042 | |
| mean_UDexc_COV | 0.11 (-0.31 to 0.53) | 0.62 | 0.95 | -0.16 (-0.51 to 0.20) | 0.39 | 0.51 | |
| group_char | | 0.59 | 0.95 | | 0.29 | 0.51 | |
| H1000's | _ | | | _ | | | |
| H2000's | -2.9 (-11 to 5.5) | | | -4.8 (-12 to 2.6) | | | |
| H3000's | 2.0 (-7.0 to 11) | | | -5.5 (-13 to 2.3) | | | |
| mean_UDexc_COV * group_char | | 0.95 | 0.95 | | 0.78 | 0.78 | |
| mean_UDexc_COV * H2000's | -0.05 (-0.64 to 0.54) | | | 0.16 (-0.33 to 0.66) | | | |
| mean_UDexc_COV * H3000's | -0.10 (-0.75 to 0.54) | | | 0.14 (-0.40 to 0.69) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 3.6 (NA to NA) | | | |
| Residual.sdObservation | 11 (NA to NA) | | | 8.6 (NA to NA) | | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $[\]frac{1}{2}$ CI = Confidence Interval $\frac{1}{2}$ False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 6 | | | |
|------------------------------|--------------------|--------------|---------|--------------------|---------|---------|
| | Beta D | iv Theta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 3.3 (-2.9 to 9.4) | 0.30 | 0.40 | 2.8 (-2.6 to 8.1) | 0.31 | 0.87 |
| mean_UDexc_mean | -58 (-306 to 191) | 0.65 | 0.65 | 70 (-140 to 280) | 0.51 | 0.87 |
| group_char | | 0.011 | 0.045 | | 0.81 | 0.87 |
| H1000's | _ | | | _ | | |
| H2000's | -10 (-20 to -1.1) | | | -2.5 (-11 to 5.6) | | |
| H3000's | 3.8 (-5.2 to 13) | | | -2.0 (-9.9 to 6.0) | | |
| mean_UDexc_mean * group_char | | 0.075 | 0.15 | | 0.87 | 0.87 |
| mean_UDexc_mean * H2000's | 292 (-72 to 656) | | | -10 (-319 to 299) | | |
| mean_UDexc_mean * H3000's | -128 (-485 to 229) | | | -76 (-381 to 229) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 3.5 (NA to NA) | | |
| Residual.sdObservation | 10 (NA to NA) | | | 8.6 (NA to NA) | | |

| Changes in | mean_StanceDur | for Cluster: | 6 | | | |
|-----------------------------|--------------------|--------------|----------------|--------------------|---------|---------|
| | Beta | Div Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 1.1 (-5.9 to 8.2) | 0.75 | 0.81 | 7.1 (2.6 to 12) | 0.002 | 0.008 |
| mean_StanceDur | 0.62 (-4.5 to 5.8) | 0.81 | 0.81 | -2.1 (-5.3 to 1.0) | 0.18 | 0.32 |
| group_char | | 0.45 | 0.81 | | 0.24 | 0.32 |
| H1000's | _ | | | _ | | |
| H2000's | 3.9 (-9.1 to 17) | | | -4.9 (-13 to 3.3) | | |
| H3000's | -5.5 (-18 to 6.8) | | | -6.1 (-14 to 1.7) | | |
| mean_StanceDur * group_char | | 0.088 | 0.35 | | 0.83 | 0.83 |
| mean_StanceDur * H2000's | -7.0 (-18 to 4.4) | | | 1.6 (-5.3 to 8.6) | | |
| mean_StanceDur * H3000's | 9.2 (-2.4 to 21) | | | 1.8 (-5.4 to 8.9) | | |
| subj_char.sd(Intercept) | 3.1 (NA to NA) | | | 3.6 (NA to NA) | | |
| Residual.sdObservation | 14 (NA to NA) | | | 8.5 (NA to NA) | | |

CI = Confidence Interval
 False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| mean_GaitCycleDur | for Cluster: | 6 | | | |
|--------------------|---|--|---|--|--|
| Beta D | Theta div Beta | | | | |
| Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| 1.2 (-7.3 to 9.7) | 0.78 | 0.86 | 7.5 (2.2 to 13) | 0.006 | 0.022 |
| 0.40 (-3.9 to 4.7) | 0.86 | 0.86 | -1.7 (-4.3 to 0.96) | 0.21 | 0.43 |
| | 0.32 | 0.64 | | 0.32 | 0.43 |
| _ | | | _ | | |
| 6.5 (-9.1 to 22) | | | -5.2 (-15 to 4.5) | | |
| -7.1 (-22 to 7.6) | | | -6.4 (-16 to 2.9) | | |
| | 0.073 | 0.29 | | 0.84 | 0.84 |
| -6.5 (-16 to 2.9) | | | 1.3 (-4.5 to 7.1) | | |
| 7.4 (-2.1 to 17) | | | 1.4 (-4.6 to 7.4) | | |
| 3.0 (NA to NA) | | | 3.6 (NA to NA) | | |
| 14 (NA to NA) | | | 8.5 (NA to NA) | | |
| | Beta D Beta (95% CI) 1.2 (-7.3 to 9.7) 0.40 (-3.9 to 4.7) 6.5 (-9.1 to 22) -7.1 (-22 to 7.6) -6.5 (-16 to 2.9) 7.4 (-2.1 to 17) 3.0 (NA to NA) | Beta Div Theta Beta (95% CI) p-value 1.2 (-7.3 to 9.7) 0.78 0.40 (-3.9 to 4.7) 0.86 | Beta Div Theta Beta (95% CI) p-value q-value 1.2 (-7.3 to 9.7) 0.78 0.86 0.40 (-3.9 to 4.7) 0.86 0.86 0.32 0.64 | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $ \begin{array}{ c c c c c c } \hline \textbf{Beta Div Theta} \\ \hline \textbf{Beta (95\% CI)} & \textbf{p-value} \\ \hline 1.2 (-7.3 \text{ to } 9.7) & 0.78 & 0.86 & 7.5 (2.2 \text{ to } 13) & 0.006 \\ \hline 0.40 (-3.9 \text{ to } 4.7) & 0.86 & 0.86 & -1.7 (-4.3 \text{ to } 0.96) & 0.21 \\ \hline & & & & & & & & & & & \\ \hline 0.5 (-9.1 \text{ to } 22) & & & & & & & \\ \hline -7.1 (-22 \text{ to } 7.6) & & & & & & \\ \hline 0.073 & 0.29 & & & & & & \\ \hline -6.5 (-16 \text{ to } 2.9) & & & & & & \\ \hline -6.5 (-16 \text{ to } 2.9) & & & & & \\ \hline 1.3 (-4.5 \text{ to } 7.1) & & & & \\ \hline 1.4 (-4.6 \text{ to } 7.4) & & & \\ \hline 3.0 (\text{NA to NA}) & & & & & \\ \hline \end{array} $ |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 6 | | | |
|--------------------------------------|-------------------------|--------------|---------|--------------------|---------|---------|
| | Beta Div T | heta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 2.8 (-2.2 to 7.7) | 0.28 | 0.37 | 2.8 (-1.5 to 7.2) | 0.20 | 0.81 |
| mean_PeakUpDownVel_mean | -3.6 (-23 to 16) | 0.72 | 0.72 | 6.8 (-9.4 to 23) | 0.41 | 0.82 |
| group_char | | 0.010 | 0.041 | | 0.76 | 0.85 |
| H1000's | _ | | | _ | | |
| H2000's | -8.9 (-17 to -1.1) | | | -2.1 (-8.9 to 4.7) | | |
| H3000's | 3.5 (-4.1 to 11) | | | -2.2 (-8.9 to 4.4) | | |
| mean_PeakUpDownVel_mean * group_char | | 0.085 | 0.17 | | 0.85 | 0.85 |
| mean_PeakUpDownVel_mean * H2000's | 22 (-6.8 to 50) | | | -3.2 (-27 to 20) | | |
| mean_PeakUpDownVel_mean * H3000's | -9.5 (-37 to 18) | | | -6.7 (-29 to 16) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 3.5 (NA to NA) | | |
| Residual.sdObservation | 10 (NA to NA) | | | 8.6 (NA to NA) | | |
| | | | | | | |

¹ CI = Confidence Interval

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{2}}$ False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 7 | | | |
|-----------------------------|---------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -11 (-54 to 33) | 0.64 | 0.94 | 1.0 (-1.3 to 3.3) | 0.38 | 0.89 |
| mean_APexc_COV | -0.10 (-2.8 to 2.6) | 0.94 | 0.94 | -0.04 (-0.18 to 0.10) | 0.58 | 0.89 |
| group_char | | 0.81 | 0.94 | | 0.85 | 0.89 |
| H1000's | _ | | | _ | | |
| H2000's | -18 (-95 to 58) | | | -1.1 (-5.2 to 2.9) | | |
| H3000's | 6.0 (-52 to 64) | | | -0.62 (-3.7 to 2.5) | | |
| mean_APexc_COV * group_char | | 0.70 | 0.94 | | 0.89 | 0.89 |
| mean_APexc_COV * H2000's | 1.4 (-2.5 to 5.2) | | | 0.05 (-0.15 to 0.25) | | |
| mean_APexc_COV * H3000's | 0.07 (-3.0 to 3.1) | | | 0.03 (-0.13 to 0.19) | | |
| subj_char.sd(Intercept) | 17 (NA to NA) | | | 1.2 (NA to NA) | | |
| Residual.sdObservation | 50 (NA to NA) | | | 2.5 (NA to NA) | | |

| Changes in | mean_APexc_mean | for Cluster: | 7 | | | |
|------------------------------|---------------------|----------------|---------|--------------------|---------|---------|
| | Beta D | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -17 (-53 to 20) | 0.37 | 0.83 | 1.6 (-0.26 to 3.5) | 0.091 | 0.34 |
| mean_APexc_mean | 79 (-551 to 709) | 0.81 | 0.83 | -22 (-54 to 9.6) | 0.17 | 0.34 |
| group_char | | 0.83 | 0.83 | | 0.47 | 0.63 |
| H1000's | _ | | | _ | | |
| H2000's | 5.3 (-48 to 59) | | | -1.3 (-4.1 to 1.4) | | |
| H3000's | -9.6 (-57 to 38) | | | -1.5 (-3.9 to 1.0) | | |
| mean_APexc_mean * group_char | | 0.67 | 0.83 | | 0.63 | 0.63 |
| mean_APexc_mean * H2000's | 141 (-873 to 1,156) | | | 18 (-34 to 70) | | |
| mean_APexc_mean * H3000's | 422 (-511 to 1,356) | | | 22 (-26 to 70) | | |
| subj_char.sd(Intercept) | 16 (NA to NA) | | | 1.2 (NA to NA) | | |
| Residual.sdObservation | 50 (NA to NA) | | | 2.5 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 7 | | | |
|-----------------------------|---------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -8.2 (-44 to 27) | 0.65 | 0.82 | 0.66 (-1.2 to 2.5) | 0.49 | 0.88 |
| mean_MLexc_COV | -0.29 (-2.7 to 2.2) | 0.82 | 0.82 | -0.02 (-0.15 to 0.11) | 0.76 | 0.88 |
| group_char | | 0.46 | 0.82 | | 0.78 | 0.88 |
| H1000's | _ | | | _ | | |
| H2000's | 19 (-33 to 71) | | | -0.98 (-3.7 to 1.8) | | |
| H3000's | -14 (-64 to 36) | | | -0.59 (-3.2 to 2.0) | | |
| mean_MLexc_COV * group_char | | 0.48 | 0.82 | | 0.88 | 0.88 |
| mean_MLexc_COV * H2000's | -0.54 (-4.0 to 2.9) | | | 0.05 (-0.13 to 0.23) | | |
| mean_MLexc_COV * H3000's | 1.5 (-1.9 to 4.9) | | | 0.02 (-0.15 to 0.20) | | |
| subj_char.sd(Intercept) | 17 (NA to NA) | | | 1.2 (NA to NA) | | |
| Residual.sdObservation | 50 (NA to NA) | | | 2.5 (NA to NA) | | |

| Changes in | mean_MLexc_mean | for Cluster: | 7 | | | |
|------------------------------|--------------------|----------------|---------|--------------------|---------|---------|
| | Beta D | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -31 (-63 to 1.8) | 0.064 | 0.26 | 1.3 (-0.39 to 3.0) | 0.13 | 0.51 |
| mean_MLexc_mean | 222 (-143 to 586) | 0.23 | 0.47 | -11 (-30 to 7.8) | 0.25 | 0.51 |
| group_char | | 0.69 | 0.90 | | 0.58 | 0.69 |
| H1000's | _ | | | _ | | |
| H2000's | 20 (-26 to 66) | | | -1.0 (-3.4 to 1.4) | | |
| H3000's | 13 (-30 to 55) | | | -1.1 (-3.3 to 1.1) | | |
| mean_MLexc_mean * group_char | | 0.90 | 0.90 | | 0.69 | 0.69 |
| mean_MLexc_mean * H2000's | -111 (-596 to 374) | | | 8.6 (-16 to 33) | | |
| mean_MLexc_mean * H3000's | -73 (-544 to 398) | | | 10 (-14 to 35) | | |
| subj_char.sd(Intercept) | 16 (NA to NA) | | | 1.2 (NA to NA) | | |
| Residual.sdObservation | 50 (NA to NA) | | | 2.5 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 7 | | | | |
|---------------------------|------------------|----------------|---------|----------------------|----------------|---------|--|
| | Beta | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -20 (-50 to 9.3) | 0.18 | 0.72 | 1.2 (-0.27 to 2.8) | 0.11 | 0.43 | |
| mean_StepDur | 8.9 (-21 to 39) | 0.56 | 0.97 | -0.94 (-2.4 to 0.56) | 0.22 | 0.44 | |
| group_char | | 0.97 | 0.97 | | 0.66 | 0.83 | |
| H1000's | _ | | | _ | | | |
| H2000's | 1.1 (-53 to 55) | | | -0.88 (-3.6 to 1.9) | | | |
| H3000's | -5.3 (-54 to 44) | | | -1.1 (-3.6 to 1.4) | | | |
| mean_StepDur * group_char | | 0.78 | 0.97 | | 0.83 | 0.83 | |
| mean_StepDur * H2000's | 14 (-48 to 76) | | | 0.56 (-2.5 to 3.7) | | | |
| mean_StepDur * H3000's | 20 (-42 to 82) | | | 0.90 (-2.2 to 4.0) | | | |
| subj_char.sd(Intercept) | 17 (NA to NA) | | | 1.2 (NA to NA) | | | |
| Residual.sdObservation | 49 (NA to NA) | | | 2.5 (NA to NA) | | | |

 $^{^{1}}$ CI = Confidence Interval

| Changes in | mean_UDexc_COV | for Cluster: | 7 | | | |
|-----------------------------|--------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -19 (-45 to 7.2) | 0.16 | 0.63 | 1.2 (-0.09 to 2.6) | 0.067 | 0.27 |
| mean_UDexc_COV | 0.52 (-1.3 to 2.4) | 0.58 | 0.99 | -0.07 (-0.16 to 0.02) | 0.15 | 0.30 |
| group_char | | 0.99 | 0.99 | | 0.48 | 0.57 |
| H1000's | _ | | | _ | | |
| H2000's | 2.4 (-38 to 42) | | | -1.1 (-3.1 to 1.0) | | |
| H3000's | 3.1 (-37 to 43) | | | -1.1 (-3.2 to 0.97) | | |
| mean_UDexc_COV * group_char | | 0.90 | 0.99 | | 0.57 | 0.57 |
| mean_UDexc_COV * H2000's | 0.65 (-2.1 to 3.4) | | | 0.06 (-0.08 to 0.20) | | |
| mean_UDexc_COV * H3000's | 0.21 (-2.5 to 3.0) | | | 0.07 (-0.07 to 0.21) | | |
| subj_char.sd(Intercept) | 16 (NA to NA) | | | 1.2 (NA to NA) | | |
| Residual.sdObservation | 50 (NA to NA) | | | 2.5 (NA to NA) | | |

² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 7 | | | |
|------------------------------|------------------------|----------------|---------|---------------------|---------|---------|
| | Beta D | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -14 (-44 to 15) | 0.34 | 0.87 | -0.48 (-2.0 to 1.0) | 0.53 | 0.84 |
| mean_UDexc_mean | 91 (-1,037 to 1,219) | 0.87 | 0.87 | 36 (-20 to 93) | 0.21 | 0.83 |
| group_char | | 0.46 | 0.87 | | 0.84 | 0.84 |
| H1000's | _ | | | _ | | |
| H2000's | 28 (-18 to 73) | | | 0.34 (-2.0 to 2.7) | | |
| H3000's | 18 (-23 to 60) | | | 0.65 (-1.5 to 2.8) | | |
| mean_UDexc_mean * group_char | | 0.72 | 0.87 | | 0.63 | 0.84 |
| mean_UDexc_mean * H2000's | -684 (-2,430 to 1,061) | | | -28 (-116 to 60) | | |
| mean_UDexc_mean * H3000's | -464 (-2,041 to 1,112) | | | -38 (-117 to 42) | | |
| subj_char.sd(Intercept) | 16 (NA to NA) | | | 1.2 (NA to NA) | | |
| Residual.sdObservation | 50 (NA to NA) | | | 2.5 (NA to NA) | | |

| Changes in | mean_StanceDur | for Cluster: | 7 | | | |
|-----------------------------|------------------|--------------|---------|----------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -18 (-43 to 6.7) | 0.15 | 0.61 | 1.1 (-0.16 to 2.4) | 0.087 | 0.35 |
| mean_StanceDur | 4.9 (-13 to 23) | 0.59 | 0.94 | -0.59 (-1.5 to 0.30) | 0.19 | 0.39 |
| group_char | | 0.94 | 0.94 | | 0.63 | 0.83 |
| H1000's | _ | | | _ | | |
| H2000's | 3.7 (-41 to 49) | | | -0.83 (-3.1 to 1.5) | | |
| H3000's | -5.3 (-46 to 36) | | | -0.93 (-3.0 to 1.2) | | |
| mean_StanceDur * group_char | | 0.73 | 0.94 | | 0.83 | 0.83 |
| mean_StanceDur * H2000's | 8.0 (-29 to 45) | | | 0.38 (-1.5 to 2.2) | | |
| mean_StanceDur * H3000's | 14 (-23 to 52) | | | 0.53 (-1.3 to 2.4) | | |
| subj_char.sd(Intercept) | 17 (NA to NA) | | | 1.2 (NA to NA) | | |
| Residual.sdObservation | 50 (NA to NA) | | | 2.5 (NA to NA) | | |
| | | | | | | |

 $^{^{1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

 $^{^{1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 7 | | | | |
|--------------------------------|-------------------|--------------|---------|----------------------|---------|---------|--|
| | Beta D | iv Theta | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -20 (-50 to 9.3) | 0.18 | 0.71 | 1.2 (-0.27 to 2.7) | 0.11 | 0.43 | |
| mean_GaitCycleDur | 4.5 (-11 to 20) | 0.56 | 0.97 | -0.47 (-1.2 to 0.28) | 0.22 | 0.44 | |
| group_char | | 0.97 | 0.97 | | 0.66 | 0.83 | |
| H1000's | _ | | | _ | | | |
| H2000's | 1.2 (-52 to 55) | | | -0.87 (-3.6 to 1.9) | | | |
| H3000's | -5.2 (-54 to 44) | | | -1.1 (-3.6 to 1.4) | | | |
| mean_GaitCycleDur * group_char | | 0.78 | 0.97 | | 0.83 | 0.83 | |
| mean_GaitCycleDur * H2000's | 7.1 (-24 to 38) | | | 0.28 (-1.3 to 1.8) | | | |
| mean_GaitCycleDur * H3000's | 10 (-21 to 41) | | | 0.44 (-1.1 to 2.0) | | | |
| subj_char.sd(Intercept) | 17 (NA to NA) | | | 1.2 (NA to NA) | | | |
| Residual.sdObservation | 49 (NA to NA) | | | 2.5 (NA to NA) | | | |
| | | | | | | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 7 | | | |
|--------------------------------------|-------------------------|----------------|---------|----------------------|---------|---------|
| | Beta Div T | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -13 (-37 to 10) | 0.27 | 0.91 | -0.49 (-1.7 to 0.74) | 0.44 | 0.61 |
| mean_PeakUpDownVel_mean | 4.8 (-83 to 93) | 0.91 | 0.91 | 3.7 (-0.65 to 8.1) | 0.10 | 0.38 |
| group_char | | 0.46 | 0.91 | | 0.79 | 0.79 |
| H1000's | _ | | | _ | | |
| H2000's | 21 (-17 to 60) | | | 0.36 (-1.6 to 2.3) | | |
| H3000's | 18 (-16 to 52) | | | 0.62 (-1.1 to 2.4) | | |
| mean_PeakUpDownVel_mean * group_char | | 0.76 | 0.91 | | 0.46 | 0.61 |
| mean_PeakUpDownVel_mean * H2000's | -39 (-175 to 97) | | | -2.9 (-9.7 to 3.8) | | |
| mean_PeakUpDownVel_mean * H3000's | -43 (-164 to 78) | | | -3.7 (-9.8 to 2.3) | | |
| subj_char.sd(Intercept) | 16 (NA to NA) | | | 1.2 (NA to NA) | | |
| Residual.sd Observation | 50 (NA to NA) | | | 2.5 (NA to NA) | | |

 $^{^{-1}}$ CI = Confidence Interval

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{2}}$ False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 8 | | | | |
|-----------------------------|---------------------|--------------|---------|-----------------------|---------|---------|--|
| | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -7.6 (-47 to 32) | 0.71 | 0.92 | 0.61 (-0.93 to 2.1) | 0.44 | 0.68 | |
| mean_APexc_COV | 0.67 (-1.7 to 3.1) | 0.59 | 0.92 | -0.02 (-0.11 to 0.07) | 0.65 | 0.68 | |
| group_char | | 0.83 | 0.92 | | 0.62 | 0.68 | |
| H1000's | _ | | | _ | | | |
| H2000's | -18 (-80 to 43) | | | -1.2 (-3.6 to 1.2) | | | |
| H3000's | -3.7 (-62 to 54) | | | -0.56 (-2.8 to 1.7) | | | |
| mean_APexc_COV * group_char | | 0.92 | 0.92 | | 0.68 | 0.68 | |
| mean_APexc_COV * H2000's | 0.05 (-3.1 to 3.2) | | | 0.05 (-0.07 to 0.18) | | | |
| mean_APexc_COV * H3000's | -0.44 (-3.4 to 2.5) | | | 0.04 (-0.07 to 0.16) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 53 (NA to NA) | | | 2.1 (NA to NA) | | | |

| Changes in | mean_APexc_mean | for Cluster: | 8 | | | |
|------------------------------|---------------------|----------------|---------|--------------------|---------|---------|
| | Beta D | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 7.6 (-27 to 42) | 0.67 | 0.88 | 0.31 (-1.0 to 1.6) | 0.65 | 0.86 |
| mean_APexc_mean | -82 (-686 to 522) | 0.79 | 0.88 | -0.82 (-24 to 22) | 0.94 | 0.94 |
| group_char | | 0.65 | 0.88 | | 0.16 | 0.32 |
| H1000's | _ | | | _ | | |
| H2000's | -23 (-73 to 27) | | | 1.8 (-0.13 to 3.7) | | |
| H3000's | -8.1 (-54 to 38) | | | 0.43 (-1.3 to 2.2) | | |
| mean_APexc_mean * group_char | | 0.88 | 0.88 | | 0.054 | 0.21 |
| mean_APexc_mean * H2000's | 204 (-764 to 1,172) | | | -43 (-80 to -6.1) | | |
| mean_APexc_mean * H3000's | -49 (-983 to 884) | | | -3.4 (-39 to 32) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 53 (NA to NA) | | | 2.0 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 8 | | | |
|-----------------------------|--------------------|----------------|---------|----------------------|---------|---------|
| | Beta D | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -2.8 (-31 to 25) | 0.84 | 0.84 | 0.31 (-0.77 to 1.4) | 0.57 | 0.76 |
| mean_MLexc_COV | 0.41 (-1.4 to 2.2) | 0.66 | 0.84 | 0.00 (-0.07 to 0.07) | 0.93 | 0.93 |
| group_char | | 0.17 | 0.55 | | 0.29 | 0.76 |
| H1000's | _ | | | _ | | |
| H2000's | -21 (-64 to 23) | | | -1.2 (-2.9 to 0.53) | | |
| H3000's | -43 (-88 to 2.1) | | | 0.20 (-1.6 to 2.0) | | |
| mean_MLexc_COV * group_char | | 0.28 | 0.55 | | 0.42 | 0.76 |
| mean_MLexc_COV * H2000's | 0.52 (-2.3 to 3.4) | | | 0.07 (-0.04 to 0.18) | | |
| mean_MLexc_COV * H3000's | 2.4 (-0.57 to 5.3) | | | 0.01 (-0.11 to 0.12) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 53 (NA to NA) | | | 2.1 (NA to NA) | | |

| Changes in | mean_MLexc_mean | for Cluster: | 8 | | | | |
|------------------------------|--------------------|--------------|---------|---------------------|---------|---------|--|
| | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 18 (-11 to 48) | 0.22 | 0.56 | 0.31 (-0.82 to 1.4) | 0.59 | 0.79 | |
| mean_MLexc_mean | -188 (-529 to 152) | 0.28 | 0.56 | -0.51 (-14 to 13) | 0.94 | 0.94 | |
| group_char | | 0.46 | 0.61 | | 0.10 | 0.19 | |
| H1000's | _ | | | _ | | | |
| H2000's | -27 (-69 to 16) | | | 1.4 (-0.20 to 3.0) | | | |
| H3000's | -9.1 (-50 to 31) | | | -0.22 (-1.8 to 1.3) | | | |
| mean_MLexc_mean * group_char | | 0.72 | 0.72 | | 0.017 | 0.069 | |
| mean_MLexc_mean * H2000's | 163 (-301 to 628) | | | -18 (-36 to 0.07) | | | |
| mean_MLexc_mean * H3000's | 6.4 (-455 to 468) | | | 6.3 (-11 to 24) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 53 (NA to NA) | | | 2.0 (NA to NA) | | | |

 $^{^{-1}}$ CI = Confidence Interval $^{-2}$ False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 8 | | | | | |
|---------------------------|------------------|----------------|---------|----------------------|----------------|---------|--|--|
| | Beta | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | | |
| (Intercept) | 12 (-27 to 51) | 0.55 | 0.92 | 0.28 (-0.82 to 1.4) | 0.62 | 0.83 | | |
| mean_StepDur | -9.7 (-50 to 31) | 0.64 | 0.92 | -0.01 (-1.1 to 1.1) | 0.98 | 0.98 | | |
| group_char | | 0.73 | 0.92 | | 0.061 | 0.12 | | |
| H1000's | _ | | | _ | | | | |
| H2000's | -28 (-97 to 41) | | | 2.2 (0.30 to 4.2) | | | | |
| H3000's | -6.7 (-77 to 64) | | | 0.08 (-1.9 to 2.0) | | | | |
| mean_StepDur * group_char | | 0.92 | 0.92 | | 0.020 | 0.080 | | |
| mean_StepDur * H2000's | 17 (-66 to 100) | | | -3.2 (-5.5 to -0.84) | | | | |
| mean_StepDur * H3000's | 7.6 (-84 to 99) | | | 0.31 (-2.3 to 2.9) | | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | | |
| Residual.sdObservation | 73 (NA to NA) | | | 2.0 (NA to NA) | | | | |

| Changes in | mean_UDexc_COV | for Cluster: | 8 | | | | | |
|-----------------------------|---------------------|----------------|---------|-----------------------|----------------|---------|--|--|
| | Beta D | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | | |
| (Intercept) | 8.0 (-16 to 32) | 0.51 | 0.66 | 0.31 (-0.61 to 1.2) | 0.51 | 0.91 | | |
| mean_UDexc_COV | -0.39 (-2.1 to 1.3) | 0.66 | 0.66 | 0.00 (-0.07 to 0.06) | 0.91 | 0.91 | | |
| group_char | | 0.44 | 0.66 | | 0.84 | 0.91 | | |
| H1000's | _ | | | _ | | | | |
| H2000's | -21 (-59 to 17) | | | 0.39 (-1.1 to 1.9) | | | | |
| H3000's | 4.8 (-35 to 44) | | | 0.38 (-1.2 to 1.9) | | | | |
| mean_UDexc_COV * group_char | | 0.59 | 0.66 | | 0.73 | 0.91 | | |
| mean_UDexc_COV * H2000's | 0.57 (-2.1 to 3.2) | | | -0.04 (-0.14 to 0.06) | | | | |
| mean_UDexc_COV * H3000's | -0.96 (-3.7 to 1.8) | | | -0.01 (-0.11 to 0.10) | | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | | |
| Residual.sdObservation | 53 (NA to NA) | | | 2.1 (NA to NA) | | | | |

 $^{^{1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean UDexc mean | for Cluster: | 8 | | | | |
|------------------------------|-----------------------|--------------|---------|---------------------|---------|---------|--|
| | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -3.1 (-31 to 25) | 0.83 | 0.83 | 0.28 (-0.81 to 1.4) | 0.62 | 0.82 | |
| mean_UDexc_mean | 261 (-849 to 1,371) | 0.64 | 0.83 | -0.53 (-44 to 43) | 0.98 | 0.98 | |
| group_char | | 0.42 | 0.83 | | 0.10 | 0.40 | |
| H1000's | _ | | | _ | | | |
| H2000's | -20 (-62 to 23) | | | -1.3 (-3.0 to 0.35) | | | |
| H3000's | -26 (-68 to 15) | | | 0.51 (-1.1 to 2.1) | | | |
| mean_UDexc_mean * group_char | | 0.69 | 0.83 | | 0.20 | 0.40 | |
| mean_UDexc_mean * H2000's | 265 (-1,397 to 1,927) | | | 48 (-17 to 112) | | | |
| mean_UDexc_mean * H3000's | 685 (-894 to 2,263) | | | -8.4 (-70 to 53) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sd_Observation | 53 (NA to NA) | | | 2.1 (NA to NA) | | | |
| 1 07 0 01 7 1 | | | | | | | |

| Changes in | mean_StanceDur for Cluster: 8 | | 8 | | | | |
|-----------------------------|-----------------------------------|---------|---------|-----------------------|---------|---------|--|
| | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 11 (-21 to 44) | 0.50 | 0.85 | 0.28 (-0.63 to 1.2) | 0.54 | 0.73 | |
| mean_StanceDur | -6.6 (-31 to 17) | 0.59 | 0.85 | -0.01 (-0.69 to 0.66) | 0.97 | 0.97 | |
| group_char | | 0.63 | 0.85 | | 0.056 | 0.11 | |
| H1000's | _ | | | _ | | | |
| H2000's | -28 (-85 to 29) | | | 1.9 (0.29 to 3.5) | | | |
| H3000's | -9.7 (-69 to 49) | | | 0.11 (-1.5 to 1.8) | | | |
| mean_StanceDur * group_char | | 0.86 | 0.86 | | 0.012 | 0.048 | |
| mean_StanceDur * H2000's | 12 (-37 to 62) | | | -2.0 (-3.4 to -0.62) | | | |
| mean_StanceDur * H3000's | 8.9 (-47 to 64) | | | 0.20 (-1.4 to 1.7) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 73 (NA to NA) | | | 2.0 (NA to NA) | | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 8 | | | | |
|--------------------------------|-------------------|--------------|---------|-----------------------|---------|---------|--|
| | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 12 (-27 to 51) | 0.55 | 0.92 | 0.28 (-0.82 to 1.4) | 0.62 | 0.83 | |
| mean_GaitCycleDur | -4.9 (-25 to 15) | 0.64 | 0.92 | -0.01 (-0.57 to 0.56) | 0.98 | 0.98 | |
| group_char | | 0.73 | 0.92 | | 0.063 | 0.13 | |
| H1000's | _ | | | _ | | | |
| H2000's | -28 (-97 to 41) | | | 2.2 (0.29 to 4.2) | | | |
| H3000's | -7.0 (-77 to 63) | | | 0.07 (-1.9 to 2.0) | | | |
| mean_GaitCycleDur * group_char | | 0.92 | 0.92 | | 0.021 | 0.083 | |
| mean_GaitCycleDur * H2000's | 8.5 (-33 to 50) | | | -1.6 (-2.7 to -0.41) | | | |
| mean_GaitCycleDur * H3000's | 4.0 (-42 to 50) | | | 0.16 (-1.1 to 1.4) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 73 (NA to NA) | | | 2.0 (NA to NA) | | | |
| | | | | | | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 8 | | | |
|--------------------------------------|-------------------------|----------------|---------|---------------------|---------|---------|
| | Beta Div T | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -1.6 (-24 to 21) | 0.89 | 0.89 | 0.26 (-0.62 to 1.1) | 0.56 | 0.74 |
| mean_PeakUpDownVel_mean | 20 (-68 to 108) | 0.66 | 0.89 | 0.01 (-3.4 to 3.4) | >0.99 | >0.99 |
| group_char | | 0.40 | 0.89 | | 0.035 | 0.14 |
| H1000's | _ | | | _ | | |
| H2000's | -19 (-54 to 16) | | | -1.3 (-2.7 to 0.04) | | |
| H3000's | -22 (-57 to 13) | | | 0.55 (-0.81 to 1.9) | | |
| mean_PeakUpDownVel_mean * group_char | | 0.78 | 0.89 | | 0.077 | 0.15 |
| mean_PeakUpDownVel_mean * H2000's | 19 (-110 to 148) | | | 4.5 (-0.43 to 9.5) | | |
| mean_PeakUpDownVel_mean * H3000's | 45 (-80 to 171) | | | -0.90 (-5.8 to 4.0) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 53 (NA to NA) | | | 2.1 (NA to NA) | | |

 $^{^{-1}}$ CI = Confidence Interval

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{2}}$ False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 9 | | | |
|-----------------------------|---------------------|--------------|---------|----------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -2.8 (-26 to 21) | 0.82 | 0.93 | 5.8 (-12 to 23) | 0.52 | >0.99 |
| mean_APexc_COV | -0.14 (-1.6 to 1.3) | 0.85 | 0.93 | -0.21 (-1.3 to 0.87) | 0.70 | >0.99 |
| group_char | | 0.93 | 0.93 | | >0.99 | >0.99 |
| H1000's | _ | | | _ | | |
| H2000's | -1.2 (-35 to 32) | | | -0.09 (-25 to 25) | | |
| H3000's | 4.0 (-26 to 34) | | | 0.05 (-23 to 23) | | |
| mean_APexc_COV * group_char | | 0.86 | 0.93 | | 0.98 | >0.99 |
| mean_APexc_COV * H2000's | 0.42 (-1.4 to 2.2) | | | -0.01 (-1.3 to 1.3) | | |
| mean_APexc_COV * H3000's | 0.11 (-1.5 to 1.8) | | | 0.08 (-1.1 to 1.3) | | |
| subj_char.sd(Intercept) | 2.9 (NA to NA) | | | 4.6 (NA to NA) | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_APexc_mean | for Cluster: | 9 | | | |
|------------------------------|-------------------|----------------|---------|-------------------|---------|---------|
| | Beta D | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -0.01 (-19 to 19) | >0.99 | >0.99 | 0.56 (-13 to 14) | 0.94 | 0.94 |
| mean_APexc_mean | -88 (-408 to 232) | 0.59 | >0.99 | 33 (-196 to 263) | 0.78 | 0.94 |
| group_char | | 0.89 | >0.99 | | 0.18 | 0.39 |
| H1000's | | | | _ | | |
| H2000's | 6.7 (-21 to 35) | | | -16 (-36 to 4.7) | | |
| H3000's | 1.3 (-24 to 26) | | | 1.3 (-17 to 20) | | |
| mean_APexc_mean * group_char | | 0.95 | >0.99 | | 0.20 | 0.39 |
| mean_APexc_mean * H2000's | -14 (-566 to 538) | | | 336 (-66 to 738) | | |
| mean_APexc_mean * H3000's | 69 (-415 to 553) | | | -16 (-367 to 335) | | |
| subj_char.sd(Intercept) | 2.2 (NA to NA) | | | 4.1 (NA to NA) | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | |

 $^{^{1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 9 | | | | |
|-----------------------------|---------------------|--------------|---------|----------------------|---------|---------|--|
| | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -9.7 (-28 to 8.9) | 0.30 | 0.78 | 1.5 (-13 to 16) | 0.84 | 0.89 | |
| mean_MLexc_COV | 0.32 (-0.86 to 1.5) | 0.60 | 0.78 | 0.06 (-0.85 to 0.97) | 0.89 | 0.89 | |
| group_char | | 0.66 | 0.78 | | 0.71 | 0.89 | |
| H1000's | _ | | | _ | | | |
| H2000's | 4.4 (-22 to 31) | | | 8.4 (-12 to 29) | | | |
| H3000's | 11 (-13 to 36) | | | 2.8 (-16 to 22) | | | |
| mean_MLexc_COV * group_char | | 0.78 | 0.78 | | 0.56 | 0.89 | |
| mean_MLexc_COV * H2000's | 0.19 (-1.5 to 1.9) | | | -0.68 (-2.0 to 0.60) | | | |
| mean_MLexc_COV * H3000's | -0.38 (-2.0 to 1.2) | | | -0.19 (-1.4 to 1.0) | | | |
| subj_char.sd(Intercept) | 2.5 (NA to NA) | | | 4.6 (NA to NA) | | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | | |

| Changes in | mean_MLexc_mean | for Cluster: | 9 | | | | |
|------------------------------|--------------------|--------------|---------|--------------------|---------|---------|--|
| | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -4.6 (-23 to 14) | 0.62 | 0.96 | -1.3 (-15 to 12) | 0.86 | >0.99 | |
| mean_MLexc_mean | -5.2 (-220 to 209) | 0.96 | 0.96 | 46 (-112 to 205) | 0.57 | >0.99 | |
| group_char | | 0.57 | 0.96 | | 0.99 | >0.99 | |
| H1000's | _ | | | _ | | | |
| H2000's | 13 (-11 to 37) | | | -1.6 (-20 to 16) | | | |
| H3000's | 6.2 (-17 to 29) | | | -0.86 (-18 to 16) | | | |
| mean_MLexc_mean * group_char | | 0.84 | 0.96 | | >0.99 | >0.99 | |
| mean_MLexc_mean * H2000's | -67 (-343 to 209) | | | -3.5 (-207 to 200) | | | |
| mean_MLexc_mean * H3000's | -6.1 (-263 to 251) | | | 4.4 (-186 to 195) | | | |
| subj_char.sd(Intercept) | 2.8 (NA to NA) | | | 4.2 (NA to NA) | | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | | |

CI = Confidence Interval
 False discovery rate correction for multiple testing

¹ CI = Confidence Interval
2 False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 9 | | | |
|---------------------------|------------------|--------------|---------|-------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -11 (-28 to 4.9) | 0.17 | 0.54 | 3.0 (-8.6 to 15) | 0.61 | 0.81 |
| mean_StepDur | 6.7 (-9.5 to 23) | 0.42 | 0.54 | -0.61 (-12 to 11) | 0.92 | 0.92 |
| group_char | | 0.27 | 0.54 | | 0.11 | 0.22 |
| H1000's | _ | | | _ | | |
| H2000's | 22 (-5.1 to 49) | | | -21 (-40 to -1.4) | | |
| H3000's | 12 (-16 to 40) | | | -6.4 (-27 to 14) | | |
| mean_StepDur * group_char | | 0.54 | 0.54 | | 0.090 | 0.22 |
| mean_StepDur * H2000's | -18 (-49 to 14) | | | 25 (2.6 to 48) | | |
| mean_StepDur * H3000's | -7.0 (-43 to 29) | | | 9.1 (-16 to 35) | | |
| subj_char.sd(Intercept) | 2.6 (NA to NA) | | | 3.9 (NA to NA) | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_UDexc_COV | for Cluster: | 9 | | | | |
|-----------------------------|---------------------|--------------|---------|----------------------|---------|---------|--|
| | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -6.9 (-21 to 6.7) | 0.32 | 0.94 | 0.93 (-9.1 to 11) | 0.86 | 0.86 | |
| mean_UDexc_COV | 0.16 (-0.84 to 1.2) | 0.76 | 0.94 | 0.12 (-0.59 to 0.84) | 0.73 | 0.86 | |
| group_char | | 0.60 | 0.94 | | 0.49 | 0.86 | |
| H1000's | _ | | | _ | | | |
| H2000's | 10 (-12 to 33) | | | -9.7 (-26 to 6.6) | | | |
| H3000's | 8.4 (-12 to 29) | | | -2.0 (-17 to 13) | | | |
| mean_UDexc_COV * group_char | | 0.94 | 0.94 | | 0.60 | 0.86 | |
| mean_UDexc_COV * H2000's | -0.24 (-1.8 to 1.3) | | | 0.57 (-0.55 to 1.7) | | | |
| mean_UDexc_COV * H3000's | -0.22 (-1.7 to 1.2) | | | 0.14 (-0.91 to 1.2) | | | |
| subj_char.sd(Intercept) | 2.1 (NA to NA) | | | 4.4 (NA to NA) | | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | | |

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 9 | | | |
|------------------------------|---------------------|--------------|---------|--------------------|---------|---------|
| | Beta D | iv Theta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -2.5 (-19 to 14) | 0.77 | 0.95 | 5.3 (-6.7 to 17) | 0.39 | 0.92 |
| mean_UDexc_mean | -105 (-745 to 534) | 0.75 | 0.95 | -118 (-579 to 343) | 0.62 | 0.92 |
| group_char | | 0.95 | 0.95 | | 0.92 | 0.92 |
| H1000's | _ | | | _ | | |
| H2000's | 1.9 (-22 to 26) | | | 3.3 (-14 to 21) | | |
| H3000's | 3.6 (-19 to 26) | | | 0.43 (-16 to 17) | | |
| mean_UDexc_mean * group_char | | 0.89 | 0.95 | | 0.77 | 0.92 |
| mean_UDexc_mean * H2000's | 224 (-709 to 1,157) | | | -216 (-889 to 457) | | |
| mean_UDexc_mean * H3000's | 83 (-763 to 928) | | | -8.0 (-625 to 609) | | |
| subj_char.sd(Intercept) | 2.2 (NA to NA) | | | 4.2 (NA to NA) | | |
| Residual.sd_Observation | 21 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_StanceDur | for Cluster: | 9 | | | | |
|-----------------------------|-------------------|----------------|---------|---------------------|----------------|---------|--|
| | Beta | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -10 (-24 to 3.7) | 0.15 | 0.56 | 2.9 (-7.1 to 13) | 0.57 | 0.76 | |
| mean_StanceDur | 4.0 (-5.8 to 14) | 0.42 | 0.56 | -0.34 (-7.3 to 6.6) | 0.92 | 0.92 | |
| group_char | | 0.28 | 0.56 | | 0.13 | 0.27 | |
| H1000's | _ | | | _ | | | |
| H2000's | 18 (-4.8 to 40) | | | -17 (-33 to -0.28) | | | |
| H3000's | 11 (-13 to 34) | | | -4.5 (-21 to 12) | | | |
| mean_StanceDur * group_char | | 0.63 | 0.63 | | 0.11 | 0.27 | |
| mean_StanceDur * H2000's | -9.2 (-28 to 9.7) | | | 14 (0.89 to 28) | | | |
| mean_StanceDur * H3000's | -3.9 (-25 to 17) | | | 4.7 (-10 to 20) | | | |
| subj_char.sd(Intercept) | 2.4 (NA to NA) | | | 3.8 (NA to NA) | | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | | |

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 9 | | | | |
|--------------------------------|-------------------|----------------|---------|---------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -11 (-27 to 4.9) | 0.17 | 0.54 | 3.0 (-8.6 to 15) | 0.61 | 0.81 | |
| mean_GaitCycleDur | 3.4 (-4.7 to 11) | 0.42 | 0.54 | -0.30 (-6.0 to 5.4) | 0.92 | 0.92 | |
| group_char | | 0.27 | 0.54 | | 0.11 | 0.22 | |
| H1000's | _ | | | _ | | | |
| H2000's | 22 (-5.0 to 49) | | | -21 (-40 to -1.4) | | | |
| H3000's | 12 (-16 to 40) | | | -6.4 (-26 to 14) | | | |
| mean_GaitCycleDur * group_char | | 0.54 | 0.54 | | 0.090 | 0.22 | |
| mean_GaitCycleDur * H2000's | -8.8 (-25 to 7.0) | | | 13 (1.3 to 24) | | | |
| mean_GaitCycleDur * H3000's | -3.5 (-21 to 14) | | | 4.5 (-8.2 to 17) | | | |
| subj_char.sd(Intercept) | 2.6 (NA to NA) | | | 3.9 (NA to NA) | | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | | |
| icoldual.bdObsci vation | 21 (1111 10 1111) | | | 10 (1111 (0 1111) | | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 9 | | | |
|--------------------------------------|-------------------------|--------------|---------|------------------|---------|---------|
| | Beta Div T | heta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -3.8 (-17 to 9.6) | 0.58 | 0.91 | 3.5 (-6.3 to 13) | 0.48 | 0.87 |
| mean_PeakUpDownVel_mean | -5.2 (-55 to 45) | 0.84 | 0.91 | -4.4 (-40 to 32) | 0.81 | 0.87 |
| group_char | | 0.91 | 0.91 | | 0.87 | 0.87 |
| H1000's | _ | | | _ | | |
| H2000's | 1.6 (-18 to 21) | | | 3.5 (-11 to 18) | | |
| H3000's | 4.1 (-15 to 23) | | | 2.9 (-11 to 17) | | |
| mean_PeakUpDownVel_mean * group_char | | 0.81 | 0.91 | | 0.74 | 0.87 |
| mean_PeakUpDownVel_mean * H2000's | 23 (-49 to 94) | | | -20 (-71 to 31) | | |
| mean_PeakUpDownVel_mean * H3000's | 6.0 (-61 to 73) | | | -10 (-59 to 38) | | |
| subj_char.sd(Intercept) | 2.3 (NA to NA) | | | 4.0 (NA to NA) | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | |
| | | | | | | |

¹ CI = Confidence Interval

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{2}}$ False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 10 | | | |
|-----------------------------|----------------------|--------------|---------|----------------------|---------|---------|
| | Beta D | iv Theta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 9.0 (-14 to 32) | 0.44 | 0.83 | 0.62 (-14 to 15) | 0.93 | 0.97 |
| mean_APexc_COV | -0.33 (-1.6 to 0.97) | 0.62 | 0.83 | 0.01 (-0.80 to 0.83) | 0.97 | 0.97 |
| group_char | | 0.86 | 0.86 | | 0.79 | 0.97 |
| H1000's | _ | | | _ | | |
| H2000's | 5.7 (-34 to 45) | | | 6.0 (-20 to 32) | | |
| H3000's | -5.0 (-36 to 26) | | | -3.1 (-24 to 17) | | |
| mean_APexc_COV * group_char | | 0.39 | 0.83 | | 0.97 | 0.97 |
| mean_APexc_COV * H2000's | -0.67 (-2.6 to 1.3) | | | -0.10 (-1.3 to 1.1) | | |
| mean_APexc_COV * H3000's | 0.45 (-1.1 to 2.0) | | | 0.03 (-0.93 to 1.0) | | |
| subj_char.sd(Intercept) | 7.9 (NA to NA) | | | 8.7 (NA to NA) | | |
| Residual.sdObservation | 23 (NA to NA) | | | 13 (NA to NA) | | |

| Changes in | mean_APexc_mean | for Cluster: | 10 | | | | | |
|------------------------------|-------------------------|----------------|---------|--------------------|---------|----------------|--|--|
| | Beta Di | Beta Div Theta | | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | | |
| (Intercept) | 3.9 (-14 to 22) | 0.68 | 0.90 | 1.2 (-11 to 13) | 0.85 | 0.95 | | |
| mean_APexc_mean | -7.9 (-335 to 320) | 0.96 | 0.96 | -6.3 (-212 to 199) | 0.95 | 0.95 | | |
| group_char | | 0.003 | 0.006 | | 0.86 | 0.95 | | |
| H1000's | _ | | | _ | | | | |
| H2000's | 51 (20 to 81) | | | -4.5 (-25 to 16) | | | | |
| H3000's | 7.8 (-16 to 32) | | | 0.87 (-16 to 17) | | | | |
| mean_APexc_mean * group_char | | < 0.001 | < 0.001 | | 0.47 | 0.95 | | |
| mean_APexc_mean * H2000's | -1,476 (-2,124 to -829) | | | 198 (-220 to 616) | | | | |
| mean_APexc_mean * H3000's | -98 (-572 to 376) | | | -71 (-383 to 240) | | | | |
| subj_char.sd(Intercept) | 4.5 (NA to NA) | | | 8.6 (NA to NA) | | | | |
| Residual.sdObservation | 22 (NA to NA) | | | 13 (NA to NA) | | | | |

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 10 | | | |
|-----------------------------|----------------------|--------------|---------|----------------------|---------|---------|
| | Beta D | iv Theta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -7.3 (-26 to 11) | 0.45 | 0.45 | 0.14 (-13 to 13) | 0.98 | 0.98 |
| mean_MLexc_COV | 0.74 (-0.48 to 2.0) | 0.23 | 0.45 | 0.05 (-0.79 to 0.88) | 0.91 | 0.98 |
| group_char | | 0.45 | 0.45 | | 0.26 | 0.98 |
| H1000's | _ | | | _ | | |
| H2000's | 19 (-11 to 49) | | | 5.1 (-15 to 25) | | |
| H3000's | 11 (-16 to 37) | | | -10 (-28 to 7.7) | | |
| mean_MLexc_COV * group_char | | 0.12 | 0.45 | | 0.49 | 0.98 |
| mean_MLexc_COV * H2000's | -2.2 (-4.3 to -0.09) | | | -0.09 (-1.4 to 1.2) | | |
| mean_MLexc_COV * H3000's | -0.48 (-2.2 to 1.3) | | | 0.58 (-0.57 to 1.7) | | |
| subj_char.sd(Intercept) | 7.4 (NA to NA) | | | 8.9 (NA to NA) | | |
| Residual.sdObservation | 23 (NA to NA) | | | 13 (NA to NA) | | |

| Changes in | mean_MLexc_mean | for Cluster: | 10 | | | |
|------------------------------|-------------------|--------------|---------|--------------------|---------|---------|
| | Beta D | iv Theta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 11 (-5.9 to 29) | 0.20 | 0.67 | 1.5 (-9.6 to 13) | 0.79 | 0.89 |
| mean_MLexc_mean | -98 (-297 to 101) | 0.33 | 0.67 | -8.6 (-131 to 113) | 0.89 | 0.89 |
| group_char | | 0.68 | 0.91 | | 0.18 | 0.36 |
| H1000's | _ | | | _ | | |
| H2000's | -4.8 (-30 to 21) | | | 1.4 (-15 to 18) | | |
| H3000's | 5.6 (-17 to 28) | | | 12 (-2.3 to 27) | | |
| mean_MLexc_mean * group_char | | 0.91 | 0.91 | | 0.017 | 0.067 |
| mean_MLexc_mean * H2000's | -58 (-336 to 220) | | | 29 (-137 to 194) | | |
| mean_MLexc_mean * H3000's | -14 (-263 to 235) | | | -166 (-320 to -12) | | |
| subj_char.sd(Intercept) | 7.4 (NA to NA) | | | 8.8 (NA to NA) | | |
| Residual.sdObservation | 23 (NA to NA) | | | 13 (NA to NA) | | |

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 10 | | | |
|---------------------------|------------------|--------------|---------|--------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 3.4 (-13 to 20) | 0.69 | 0.91 | 1.6 (-8.8 to 12) | 0.76 | 0.87 |
| mean_StepDur | 0.06 (-17 to 17) | >0.99 | >0.99 | -0.87 (-11 to 9.2) | 0.87 | 0.87 |
| group_char | | 0.13 | 0.25 | | 0.34 | 0.67 |
| H1000's | _ | | | _ | | |
| H2000's | 28 (-3.0 to 58) | | | -1.7 (-21 to 17) | | |
| H3000's | 21 (-5.7 to 48) | | | 12 (-5.6 to 29) | | |
| mean_StepDur * group_char | | 0.018 | 0.071 | | 0.10 | 0.39 |
| mean_StepDur * H2000's | -51 (-88 to -14) | | | 7.2 (-15 to 29) | | |
| mean_StepDur * H3000's | -25 (-60 to 8.6) | | | -20 (-41 to 0.90) | | |
| subj_char.sd(Intercept) | 6.6 (NA to NA) | | | 8.4 (NA to NA) | | |
| Residual.sdObservation | 22 (NA to NA) | | | 13 (NA to NA) | | |

| Changes in | mean_UDexc_COV | for Cluster: | 10 | | | | |
|-----------------------------|----------------------|----------------|---------|-----------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 6.0 (-7.8 to 20) | 0.40 | 0.53 | 1.1 (-8.0 to 10) | 0.81 | 0.95 | |
| mean_UDexc_COV | -0.20 (-1.2 to 0.78) | 0.69 | 0.69 | -0.02 (-0.61 to 0.57) | 0.95 | 0.95 | |
| group_char | | 0.37 | 0.53 | | 0.84 | 0.95 | |
| H1000's | _ | | | _ | | | |
| H2000's | 6.4 (-16 to 29) | | | 2.4 (-13 to 17) | | | |
| H3000's | 15 (-6.0 to 36) | | | 4.2 (-9.8 to 18) | | | |
| mean_UDexc_COV * group_char | | 0.25 | 0.53 | | 0.48 | 0.95 | |
| mean_UDexc_COV * H2000's | -1.3 (-2.9 to 0.31) | | | 0.11 (-0.85 to 1.1) | | | |
| mean_UDexc_COV * H3000's | -0.83 (-2.3 to 0.64) | | | -0.46 (-1.4 to 0.45) | | | |
| subj_char.sd(Intercept) | 7.0 (NA to NA) | | | 8.8 (NA to NA) | | | |
| Residual.sdObservation | 22 (NA to NA) | | | 13 (NA to NA) | | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $[\]frac{1}{2}$ CI = Confidence Interval

False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 10 | | | |
|------------------------------|---------------------|--------------|---------|-------------------|---------|---------|
| - | Beta D | iv Theta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 1.4 (-16 to 18) | 0.87 | 0.87 | -0.08 (-11 to 11) | 0.99 | 0.99 |
| mean_UDexc_mean | 91 (-608 to 789) | 0.80 | 0.87 | 41 (-385 to 468) | 0.85 | 0.99 |
| group_char | | 0.23 | 0.66 | | 0.31 | 0.99 |
| H1000's | _ | | | _ | | |
| H2000's | -21 (-46 to 3.9) | | | 4.9 (-11 to 21) | | |
| H3000's | -14 (-37 to 9.0) | | | -7.3 (-22 to 7.9) | | |
| mean_UDexc_mean * group_char | | 0.33 | 0.66 | | 0.64 | 0.99 |
| mean_UDexc_mean * H2000's | 424 (-546 to 1,394) | | | -47 (-640 to 547) | | |
| mean_UDexc_mean * H3000's | 679 (-215 to 1,573) | | | 195 (-358 to 747) | | |
| subj_char.sd(Intercept) | 7.6 (NA to NA) | | | 8.7 (NA to NA) | | |
| Residual.sdObservation | 22 (NA to NA) | | | 13 (NA to NA) | | |

| Changes in | mean_StanceDur | for Cluster: | 10 | | | |
|-----------------------------|-------------------|--------------|---------|---------------------|---------|---------|
| | Beta | Div Theta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 3.3 (-11 to 17) | 0.65 | 0.86 | 1.5 (-7.6 to 11) | 0.74 | 0.86 |
| mean_StanceDur | 0.16 (-10 to 10) | 0.97 | 0.97 | -0.54 (-6.6 to 5.5) | 0.86 | 0.86 |
| group_char | | 0.20 | 0.40 | | 0.48 | 0.86 |
| H1000's | _ | | | _ | | |
| H2000's | 18 (-7.8 to 43) | | | 0.10 (-16 to 16) | | |
| H3000's | 18 (-4.5 to 41) | | | 8.5 (-6.1 to 23) | | |
| mean_StanceDur * group_char | | 0.030 | 0.12 | | 0.13 | 0.51 |
| mean_StanceDur * H2000's | -28 (-50 to -5.9) | | | 3.6 (-9.6 to 17) | | |
| mean_StanceDur * H3000's | -16 (-36 to 5.2) | | | -12 (-24 to 1.1) | | |
| subj_char.sd(Intercept) | 6.9 (NA to NA) | | | 8.5 (NA to NA) | | |
| Residual.sdObservation | 22 (NA to NA) | | | 13 (NA to NA) | | |

CI = Confidence Interval
 False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 10 | | | | |
|--------------------------------|--------------------|--------------|---------|---------------------|---------|---------|--|
| | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 3.4 (-13 to 20) | 0.68 | 0.91 | 1.6 (-8.8 to 12) | 0.76 | 0.87 | |
| $mean_GaitCycleDur$ | 0.02 (-8.4 to 8.5) | >0.99 | >0.99 | -0.43 (-5.5 to 4.6) | 0.87 | 0.87 | |
| group_char | | 0.12 | 0.25 | | 0.34 | 0.67 | |
| H1000's | _ | | | _ | | | |
| H2000's | 28 (-2.8 to 58) | | | -1.7 (-21 to 17) | | | |
| H3000's | 21 (-5.6 to 48) | | | 12 (-5.6 to 29) | | | |
| mean_GaitCycleDur * group_char | | 0.017 | 0.068 | | 0.10 | 0.39 | |
| mean_GaitCycleDur * H2000's | -26 (-44 to -7.2) | | | 3.6 (-7.5 to 15) | | | |
| mean_GaitCycleDur * H3000's | -13 (-30 to 4.3) | | | -10 (-21 to 0.45) | | | |
| subj_char.sd(Intercept) | 6.6 (NA to NA) | | | 8.4 (NA to NA) | | | |
| Residual.sdObservation | 22 (NA to NA) | | | 13 (NA to NA) | | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 10 | | | |
|--------------------------------------|-------------------------|----------------|---------|--------------------|---------|---------|
| | Beta Div T | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 0.13 (-13 to 13) | 0.98 | 0.98 | 0.26 (-8.4 to 8.9) | 0.95 | 0.95 |
| mean_PeakUpDownVel_mean | 15 (-35 to 64) | 0.57 | 0.76 | 2.6 (-28 to 33) | 0.87 | 0.95 |
| group_char | | 0.15 | 0.58 | | 0.094 | 0.38 |
| H1000's | _ | | | _ | | |
| H2000's | -20 (-41 to 0.00) | | | 6.8 (-6.7 to 20) | | |
| H3000's | -9.6 (-28 to 8.7) | | | -7.9 (-20 to 4.2) | | |
| mean_PeakUpDownVel_mean * group_char | | 0.38 | 0.75 | | 0.26 | 0.53 |
| mean_PeakUpDownVel_mean * H2000's | 35 (-36 to 107) | | | -12 (-55 to 32) | | |
| mean_PeakUpDownVel_mean * H3000's | 45 (-19 to 109) | | | 20 (-19 to 60) | | |
| subj_char.sd(Intercept) | 7.0 (NA to NA) | | | 8.5 (NA to NA) | | |
| Residual.sdObservation | 22 (NA to NA) | | | 13 (NA to NA) | | |

¹ CI = Confidence Interval

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{2}}$ False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 11 | | | |
|-----------------------------|---------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 3.8 (-65 to 73) | 0.91 | 0.97 | 4.0 (-7.3 to 15) | 0.49 | 0.75 |
| mean_APexc_COV | -0.09 (-4.3 to 4.1) | 0.97 | 0.97 | -0.11 (-0.80 to 0.58) | 0.75 | 0.75 |
| group_char | | 0.27 | 0.94 | | 0.67 | 0.75 |
| H1000's | _ | | | _ | | |
| H2000's | -10 (-115 to 95) | | | 3.3 (-14 to 20) | | |
| H3000's | -75 (-172 to 23) | | | -4.4 (-20 to 11) | | |
| mean_APexc_COV * group_char | | 0.47 | 0.94 | | 0.49 | 0.75 |
| mean_APexc_COV * H2000's | 0.07 (-5.4 to 5.5) | | | -0.23 (-1.1 to 0.66) | | |
| mean_APexc_COV * H3000's | 2.3 (-2.6 to 7.2) | | | 0.19 (-0.61 to 0.98) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 79 (NA to NA) | | | 13 (NA to NA) | | |

| Changes in | mean_APexc_mean | for Cluster: | 11 | | | |
|------------------------------|-----------------------|----------------|---------|--------------------|---------|---------|
| | Beta D | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 4.3 (-59 to 68) | 0.89 | 0.95 | 2.7 (-7.5 to 13) | 0.61 | 0.81 |
| mean_APexc_mean | -37 (-1,167 to 1,093) | 0.95 | 0.95 | -9.0 (-191 to 173) | 0.92 | 0.92 |
| group_char | | 0.70 | 0.95 | | 0.046 | 0.16 |
| H1000's | _ | | | _ | | |
| H2000's | -7.4 (-101 to 86) | | | -15 (-30 to -0.15) | | |
| H3000's | -32 (-111 to 47) | | | 1.1 (-12 to 14) | | |
| mean_APexc_mean * group_char | | 0.80 | 0.95 | | 0.079 | 0.16 |
| mean_APexc_mean * H2000's | -58 (-1,951 to 1,836) | | | 289 (-16 to 593) | | |
| mean_APexc_mean * H3000's | 469 (-1,119 to 2,057) | | | -47 (-303 to 208) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 80 (NA to NA) | | | 13 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 11 | | | |
|-----------------------------|--------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 1.7 (-56 to 60) | 0.95 | 0.98 | 3.7 (-5.7 to 13) | 0.44 | 0.84 |
| mean_MLexc_COV | 0.04 (-3.9 to 4.0) | 0.98 | 0.98 | -0.11 (-0.75 to 0.53) | 0.74 | 0.84 |
| group_char | | 0.57 | 0.98 | | 0.84 | 0.84 |
| H1000's | _ | | | _ | | |
| H2000's | -14 (-91 to 64) | | | -0.89 (-14 to 12) | | |
| H3000's | -46 (-132 to 41) | | | -4.1 (-18 to 10) | | |
| mean_MLexc_COV * group_char | | 0.71 | 0.98 | | 0.73 | 0.84 |
| mean_MLexc_COV * H2000's | 0.30 (-5.0 to 5.6) | | | -0.12 (-0.98 to 0.74) | | |
| mean_MLexc_COV * H3000's | 2.2 (-3.5 to 8.0) | | | 0.24 (-0.69 to 1.2) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 80 (NA to NA) | | | 13 (NA to NA) | | |

| Changes in | mean_MLexc_mean | for Cluster: | 11 | | | |
|------------------------------|--------------------|----------------|---------|-------------------|---------|---------|
| | Beta D | Theta div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 3.0 (-52 to 57) | 0.92 | 0.98 | 3.1 (-5.7 to 12) | 0.49 | 0.66 |
| mean_MLexc_mean | -8.2 (-645 to 628) | 0.98 | 0.98 | -11 (-114 to 92) | 0.83 | 0.83 |
| group_char | | 0.81 | 0.98 | | 0.22 | 0.66 |
| H1000's | _ | | | _ | | |
| H2000's | -8.5 (-80 to 63) | | | -8.8 (-20 to 2.6) | | |
| H3000's | -22 (-93 to 48) | | | -1.0 (-12 to 10) | | |
| mean_MLexc_mean * group_char | | 0.92 | 0.98 | | 0.40 | 0.66 |
| mean_MLexc_mean * H2000's | -10 (-794 to 774) | | | 71 (-56 to 197) | | |
| mean_MLexc_mean * H3000's | 120 (-693 to 933) | | | 5.4 (-126 to 137) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 80 (NA to NA) | | | 13 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 11 | | | | |
|---------------------------|------------------|--------------|---------|--------------------|---------|---------|--|
| | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 1.0 (-50 to 52) | 0.97 | 0.97 | 1.8 (-6.5 to 10) | 0.67 | 0.89 | |
| mean_StepDur | 1.4 (-52 to 55) | 0.96 | 0.97 | 0.42 (-8.2 to 9.1) | 0.92 | 0.92 | |
| group_char | | 0.59 | 0.97 | | 0.18 | 0.56 | |
| H1000's | _ | | | _ | | | |
| H2000's | 0.28 (-84 to 85) | | | -11 (-25 to 2.3) | | | |
| H3000's | -45 (-135 to 46) | | | 2.2 (-13 to 17) | | | |
| mean_StepDur * group_char | | 0.67 | 0.97 | | 0.28 | 0.56 | |
| mean_StepDur * H2000's | -13 (-114 to 88) | | | 12 (-4.5 to 28) | | | |
| mean_StepDur * H3000's | 50 (-74 to 174) | | | -4.1 (-24 to 16) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 80 (NA to NA) | | | 13 (NA to NA) | | | |

| Changes in | mean UDexc COV | for Cluster: | 11 | | | | |
|-----------------------------|--------------------|--------------|---------|-----------------------|---------|---------|--|
| | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -0.11 (-44 to 43) | >0.99 | >0.99 | 3.4 (-3.7 to 10) | 0.35 | 0.86 | |
| mean_UDexc_COV | 0.19 (-3.0 to 3.4) | 0.91 | >0.99 | -0.10 (-0.62 to 0.43) | 0.72 | 0.86 | |
| group_char | | 0.33 | 0.94 | | 0.62 | 0.86 | |
| H1000's | _ | | | _ | | | |
| H2000's | -11 (-76 to 54) | | | -5.2 (-16 to 5.4) | | | |
| H3000's | -51 (-120 to 17) | | | -1.3 (-13 to 9.9) | | | |
| mean_UDexc_COV * group_char | | 0.47 | 0.94 | | 0.86 | 0.86 | |
| mean_UDexc_COV * H2000's | 0.11 (-4.5 to 4.7) | | | 0.21 (-0.55 to 0.97) | | | |
| mean_UDexc_COV * H3000's | 2.7 (-2.1 to 7.4) | | | 0.06 (-0.71 to 0.84) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 79 (NA to NA) | | | 13 (NA to NA) | | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{-1}}$ CI = Confidence Interval $^{-2}$ False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 11 | | | | | | |
|------------------------------|------------------------|----------------|---------|--------------------|---------|----------------|--|--|--|
| | Beta D | Beta Div Theta | | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | | | |
| (Intercept) | 2.3 (-46 to 50) | 0.93 | >0.99 | 2.3 (-5.7 to 10) | 0.57 | 0.80 | | | |
| mean_UDexc_mean | 0.79 (-1,903 to 1,905) | >0.99 | >0.99 | -3.6 (-318 to 311) | 0.98 | 0.98 | | | |
| group_char | | 0.16 | 0.32 | | 0.39 | 0.80 | | | |
| H1000's | _ | | | _ | | | | | |
| H2000's | -6.4 (-72 to 60) | | | -6.3 (-17 to 4.6) | | | | | |
| H3000's | 53 (-15 to 122) | | | 0.57 (-11 to 12) | | | | | |
| mean_UDexc_mean * group_char | | 0.076 | 0.30 | | 0.60 | 0.80 | | | |
| mean_UDexc_mean * H2000's | -129 (-2,710 to 2,453) | | | 157 (-269 to 583) | | | | | |
| mean_UDexc_mean * H3000's | -2,584 (-5,172 to 2.9) | | | -45 (-472 to 383) | | | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | | | |
| Residual.sd_Observation | 78 (NA to NA) | | | 13 (NA to NA) | | | | | |

| Changes in | mean_StanceDur | for Cluster: | 11 | | | |
|-----------------------------|------------------|--------------|----------------|--------------------|---------|---------|
| | Beta | Div Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 1.2 (-42 to 44) | 0.96 | 0.96 | 1.9 (-5.0 to 8.8) | 0.59 | 0.79 |
| mean_StanceDur | 0.92 (-31 to 33) | 0.95 | 0.96 | 0.25 (-4.9 to 5.4) | 0.92 | 0.92 |
| group_char | | 0.61 | 0.96 | | 0.15 | 0.51 |
| H1000's | _ | | | _ | | |
| H2000's | -2.8 (-73 to 67) | | | -9.6 (-21 to 1.7) | | |
| H3000's | -37 (-114 to 39) | | | 2.4 (-10 to 15) | | |
| mean_StanceDur * group_char | | 0.71 | 0.96 | | 0.25 | 0.51 |
| mean_StanceDur * H2000's | -6.4 (-67 to 54) | | | 7.1 (-2.7 to 17) | | |
| mean_StanceDur * H3000's | 28 (-47 to 104) | | | -3.3 (-16 to 9.0) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 80 (NA to NA) | | | 13 (NA to NA) | | |

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 11 | | | | |
|--------------------------------|-------------------|--------------|---------|--------------------|---------|---------|--|
| | Beta Div Theta | | | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 1.0 (-50 to 52) | 0.97 | 0.97 | 1.8 (-6.5 to 10) | 0.67 | 0.89 | |
| mean_GaitCycleDur | 0.69 (-26 to 27) | 0.96 | 0.97 | 0.21 (-4.1 to 4.5) | 0.92 | 0.92 | |
| group_char | | 0.59 | 0.97 | | 0.18 | 0.56 | |
| H1000's | _ | | | _ | | | |
| H2000's | 0.30 (-84 to 85) | | | -11 (-25 to 2.3) | | | |
| H3000's | -45 (-135 to 46) | | | 2.2 (-12 to 17) | | | |
| mean_GaitCycleDur * group_char | | 0.66 | 0.97 | | 0.28 | 0.56 | |
| mean_GaitCycleDur * H2000's | -6.3 (-57 to 44) | | | 5.9 (-2.3 to 14) | | | |
| mean_GaitCycleDur * H3000's | 25 (-37 to 87) | | | -2.0 (-12 to 8.0) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 80 (NA to NA) | | | 13 (NA to NA) | | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 11 | | | | |
|---|---------------------------------------|--------------|---------|-------------------------------------|---------|---------|--|
| | Beta Div T | heta | , | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 3.2 (-36 to 42) | 0.87 | 0.96 | 2.1 (-4.4 to 8.6) | 0.53 | 0.97 | |
| mean_PeakUpDownVel_mean | -4.0 (-154 to 146) | 0.96 | 0.96 | 0.43 (-24 to 25) | 0.97 | 0.97 | |
| group_char | | 0.10 | 0.19 | | 0.62 | 0.97 | |
| H1000's | _ | | | _ | | | |
| H2000's | -8.3 (-64 to 47) | | | -4.1 (-13 to 5.1) | | | |
| H3000's | 51 (-6.3 to 108) | | | -0.19 (-9.7 to 9.3) | | | |
| mean_PeakUpDownVel_mean * group_char | | 0.036 | 0.14 | | 0.88 | 0.97 | |
| mean_PeakUpDownVel_mean * H2000's | -4.5 (-209 to 200) | | | 6.3 (-28 to 40) | | | |
| mean_PeakUpDownVel_mean * H3000's | -224 (-426 to -23) | | | -1.5 (-35 to 32) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 78 (NA to NA) | | | 13 (NA to NA) | | | |
| mean_PeakUpDownVel_mean * H2000's mean_PeakUpDownVel_mean * H3000's subj_char.sd(Intercept) | -224 (-426 to -23) 0.00 (NA to NA) | 0.036 | 0.14 | -1.5 (-35 to 32) 0.00 (NA to NA) | 0.88 | 0.97 | |

¹ CI = Confidence Interval

 $^{^{-1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

 $^{^{2}}$ False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 12 | | | |
|-----------------------------|---------------------|--------------|----------------|----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 23 (-15 to 61) | 0.23 | 0.46 | -2.0 (-15 to 12) | 0.77 | 0.89 |
| mean_APexc_COV | -1.4 (-3.7 to 0.88) | 0.23 | 0.46 | 0.06 (-0.77 to 0.90) | 0.89 | 0.89 |
| group_char | | 0.61 | 0.61 | | 0.47 | 0.89 |
| H1000's | _ | | | _ | | |
| H2000's | -30 (-88 to 29) | | | 12 (-8.5 to 33) | | |
| H3000's | -14 (-65 to 38) | | | 1.8 (-16 to 20) | | |
| mean_APexc_COV * group_char | | 0.58 | 0.61 | | 0.64 | 0.89 |
| mean_APexc_COV * H2000's | 1.5 (-1.5 to 4.5) | | | -0.41 (-1.5 to 0.66) | | |
| mean_APexc_COV * H3000's | 1.2 (-1.5 to 3.9) | | | -0.04 (-1.0 to 0.92) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_APexc_mean | for Cluster: | 12 | | | |
|------------------------------|--------------------|--------------|---------|--------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 6.2 (-25 to 38) | 0.70 | 0.89 | -7.5 (-19 to 4.0) | 0.20 | 0.33 |
| mean_APexc_mean | -104 (-645 to 437) | 0.71 | 0.89 | 120 (-84 to 323) | 0.25 | 0.33 |
| group_char | | 0.75 | 0.89 | | 0.25 | 0.33 |
| H1000's | _ | | | _ | | |
| H2000's | -6.2 (-51 to 38) | | | 14 (-2.5 to 30) | | |
| H3000's | 9.0 (-31 to 49) | | | 8.0 (-6.5 to 23) | | |
| mean_APexc_mean * group_char | | 0.89 | 0.89 | | 0.41 | 0.41 |
| mean_APexc_mean * H2000's | 7.9 (-820 to 836) | | | -204 (-511 to 103) | | |
| mean_APexc_mean * H3000's | -166 (-947 to 614) | | | -123 (-408 to 161) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 12 | | | |
|-----------------------------|---------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 17 (-13 to 46) | 0.26 | 0.35 | 3.1 (-7.2 to 13) | 0.56 | 0.86 |
| mean_MLexc_COV | -1.1 (-3.0 to 0.77) | 0.25 | 0.35 | -0.27 (-0.93 to 0.38) | 0.41 | 0.86 |
| group_char | | 0.26 | 0.35 | | 0.86 | 0.86 |
| H1000's | _ | | | _ | | |
| H2000's | -29 (-69 to 11) | | | 0.89 (-13 to 15) | | |
| H3000's | -1.7 (-43 to 40) | | | -3.0 (-18 to 12) | | |
| mean_MLexc_COV * group_char | | 0.40 | 0.40 | | 0.84 | 0.86 |
| mean_MLexc_COV * H2000's | 1.7 (-0.91 to 4.2) | | | 0.15 (-0.77 to 1.1) | | |
| mean_MLexc_COV * H3000's | 0.35 (-2.3 to 3.0) | | | 0.29 (-0.66 to 1.2) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_MLexc_mean | for Cluster: | 12 | | | |
|------------------------------|--------------------|--------------|---------|-------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 4.0 (-24 to 32) | 0.78 | 0.97 | -5.6 (-15 to 4.2) | 0.26 | 0.44 |
| mean_MLexc_mean | -43 (-367 to 280) | 0.79 | 0.97 | 58 (-59 to 175) | 0.33 | 0.44 |
| group_char | | 0.97 | 0.97 | | 0.32 | 0.44 |
| H1000's | _ | | | _ | | |
| H2000's | -3.9 (-42 to 34) | | | 10 (-3.2 to 24) | | |
| H3000's | 0.16 (-35 to 36) | | | 6.0 (-6.5 to 19) | | |
| mean_MLexc_mean * group_char | | 0.96 | 0.97 | | 0.53 | 0.53 |
| mean_MLexc_mean * H2000's | -4.4 (-408 to 399) | | | -84 (-232 to 63) | | |
| mean_MLexc_mean * H3000's | 44 (-360 to 447) | | | -59 (-205 to 86) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 40 (NA to NA) | | | 15 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 12 | | | | |
|---------------------------|-------------------|----------------|---------|-------------------|----------------|---------|--|
| | Beta | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 1.2 (-24 to 27) | 0.93 | 0.96 | -2.9 (-12 to 6.5) | 0.55 | 0.75 | |
| mean_StepDur | -0.70 (-26 to 25) | 0.96 | 0.96 | 2.1 (-7.6 to 12) | 0.67 | 0.75 | |
| group_char | | 0.52 | 0.96 | | 0.54 | 0.75 | |
| H1000's | _ | | | _ | | | |
| H2000's | -5.0 (-49 to 39) | | | 9.3 (-7.1 to 26) | | | |
| H3000's | 20 (-21 to 61) | | | 3.7 (-11 to 19) | | | |
| mean_StepDur * group_char | | 0.63 | 0.96 | | 0.75 | 0.75 | |
| mean_StepDur * H2000's | -0.22 (-51 to 50) | | | -7.4 (-27 to 12) | | | |
| mean_StepDur * H3000's | -24 (-76 to 27) | | | -2.7 (-22 to 16) | | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | | |

| Changes in | mean_UDexc_COV | for Cluster: | 12 | | | |
|-----------------------------|---------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -3.0 (-26 to 20) | 0.79 | 0.85 | -1.5 (-9.9 to 7.0) | 0.73 | >0.99 |
| mean_UDexc_COV | 0.29 (-1.4 to 1.9) | 0.73 | 0.85 | 0.04 (-0.59 to 0.66) | 0.91 | >0.99 |
| group_char | | 0.63 | 0.85 | | 0.86 | >0.99 |
| H1000's | _ | | | _ | | |
| H2000's | -4.7 (-38 to 28) | | | 3.5 (-8.7 to 16) | | |
| H3000's | 12 (-22 to 45) | | | 1.9 (-11 to 14) | | |
| mean_UDexc_COV * group_char | | 0.85 | 0.85 | | >0.99 | >0.99 |
| mean_UDexc_COV * H2000's | -0.05 (-2.3 to 2.2) | | | -0.02 (-0.88 to 0.85) | | |
| mean_UDexc_COV * H3000's | -0.61 (-2.9 to 1.7) | | | -0.05 (-0.92 to 0.83) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 40 (NA to NA) | | | 15 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{{}^{-1}}$ CI = Confidence Interval ${}^{-2}$ False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 12 | | | |
|------------------------------|------------------------|--------------|---------|--------------------|---------|---------|
| | Beta D | iv Theta | , | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 3.8 (-22 to 30) | 0.77 | 0.92 | -0.68 (-10 to 8.9) | 0.89 | 0.98 |
| mean_UDexc_mean | -138 (-1,159 to 883) | 0.79 | 0.92 | -14 (-397 to 369) | 0.94 | 0.98 |
| group_char | | 0.72 | 0.92 | | 0.98 | 0.98 |
| H1000's | _ | | | _ | | |
| H2000's | -8.3 (-46 to 30) | | | -0.41 (-14 to 14) | | |
| H3000's | 7.1 (-29 to 43) | | | 0.81 (-12 to 14) | | |
| mean_UDexc_mean * group_char | | 0.92 | 0.92 | | 0.84 | 0.98 |
| mean_UDexc_mean * H2000's | 135 (-1,290 to 1,560) | | | 145 (-388 to 679) | | |
| mean_UDexc_mean * H3000's | -140 (-1,518 to 1,237) | | | 21 (-493 to 535) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 40 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_StanceDur | for Cluster: | 12 | | | |
|-----------------------------|------------------|--------------|----------------|-------------------|---------|---------|
| | Beta | Div Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 0.53 (-21 to 22) | 0.96 | >0.99 | -2.5 (-10 to 5.5) | 0.54 | 0.69 |
| mean_StanceDur | 0.04 (-15 to 15) | >0.99 | >0.99 | 1.2 (-4.6 to 7.0) | 0.69 | 0.69 |
| group_char | | 0.48 | >0.99 | | 0.45 | 0.69 |
| H1000's | _ | | | _ | | |
| H2000's | -5.5 (-42 to 31) | | | 8.7 (-4.7 to 22) | | |
| H3000's | 17 (-17 to 52) | | | 3.1 (-9.6 to 16) | | |
| mean_StanceDur * group_char | | 0.62 | >0.99 | | 0.69 | 0.69 |
| mean_StanceDur * H2000's | 0.40 (-29 to 30) | | | -5.0 (-16 to 6.4) | | |
| mean_StanceDur * H3000's | -15 (-46 to 16) | | | -1.6 (-13 to 10) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | |

CI = Confidence Interval
 False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 12 | | | |
|--------------------------------|-------------------|--------------|---------|-------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 1.2 (-24 to 27) | 0.92 | 0.96 | -2.9 (-12 to 6.5) | 0.55 | 0.75 |
| mean_GaitCycleDur | -0.35 (-13 to 12) | 0.96 | 0.96 | 1.0 (-3.8 to 5.9) | 0.67 | 0.75 |
| group_char | | 0.52 | 0.96 | | 0.54 | 0.75 |
| H1000's | _ | | | _ | | |
| H2000's | -5.0 (-49 to 39) | | | 9.2 (-7.1 to 26) | | |
| H3000's | 20 (-21 to 61) | | | 3.7 (-11 to 19) | | |
| mean_GaitCycleDur * group_char | | 0.63 | 0.96 | | 0.75 | 0.75 |
| mean_GaitCycleDur * H2000's | -0.13 (-25 to 25) | | | -3.7 (-13 to 5.9) | | |
| mean_GaitCycleDur * H3000's | -12 (-38 to 13) | | | -1.4 (-11 to 8.2) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 12 | | | |
|--------------------------------------|-------------------------|--------------|---------|--------------------|---------|---------|
| | Beta Div T | heta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 1.8 (-19 to 23) | 0.87 | 0.98 | -1.2 (-8.9 to 6.6) | 0.77 | 0.97 |
| mean_PeakUpDownVel_mean | -5.0 (-83 to 73) | 0.90 | 0.98 | 0.73 (-29 to 31) | 0.96 | 0.97 |
| group_char | | 0.78 | 0.98 | | 0.97 | 0.97 |
| H1000's | _ | | | _ | | |
| H2000's | -7.0 (-38 to 24) | | | 1.2 (-10 to 13) | | |
| H3000's | 4.0 (-26 to 34) | | | 1.2 (-9.6 to 12) | | |
| mean_PeakUpDownVel_mean * group_char | | 0.98 | 0.98 | | 0.92 | 0.97 |
| mean_PeakUpDownVel_mean * H2000's | 7.9 (-102 to 118) | | | 7.6 (-34 to 49) | | |
| mean_PeakUpDownVel_mean * H3000's | -0.98 (-105 to 103) | | | 0.39 (-39 to 40) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sd Observation | 40 (NA to NA) | | | 15 (NA to NA) | | |

¹ CI = Confidence Interval

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{2}}$ False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 13 | | | |
|-----------------------------|---------------------|--------------|----------------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 14 (-18 to 45) | 0.39 | 0.53 | 1.0 (-4.6 to 6.7) | 0.73 | 0.86 |
| mean_APexc_COV | -0.76 (-2.7 to 1.2) | 0.45 | 0.53 | -0.03 (-0.38 to 0.32) | 0.86 | 0.86 |
| group_char | | 0.36 | 0.53 | | 0.47 | 0.86 |
| H1000's | _ | | | _ | | |
| H2000's | -26 (-76 to 23) | | | -3.2 (-12 to 5.7) | | |
| H3000's | -29 (-71 to 13) | | | 2.2 (-5.4 to 9.9) | | |
| mean_APexc_COV * group_char | | 0.53 | 0.53 | | 0.85 | 0.86 |
| mean_APexc_COV * H2000's | 0.95 (-1.7 to 3.6) | | | 0.09 (-0.37 to 0.56) | | |
| mean_APexc_COV * H3000's | 1.3 (-0.94 to 3.5) | | | -0.01 (-0.40 to 0.39) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 2.4 (NA to NA) | | |
| Residual.sdObservation | 31 (NA to NA) | | | 4.9 (NA to NA) | | |

| Changes in | mean_APexc_mean | for Cluster: | 13 | | | |
|------------------------------|---------------------|--------------|---------|---------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -2.3 (-29 to 24) | 0.86 | 0.86 | 0.65 (-3.7 to 5.0) | 0.77 | 0.95 |
| mean_APexc_mean | 80 (-382 to 542) | 0.74 | 0.86 | -2.2 (-77 to 72) | 0.95 | 0.95 |
| group_char | | 0.48 | 0.86 | | 0.045 | 0.18 |
| H1000's | _ | | | _ | | |
| H2000's | 20 (-18 to 59) | | | -0.99 (-7.6 to 5.6) | | |
| H3000's | 1.0 (-32 to 34) | | | 5.7 (0.04 to 11) | | |
| mean_APexc_mean * group_char | | 0.18 | 0.74 | | 0.16 | 0.32 |
| mean_APexc_mean * H2000's | -653 (-1,392 to 85) | | | -8.1 (-132 to 115) | | |
| mean_APexc_mean * H3000's | -82 (-710 to 547) | | | -97 (-202 to 9.4) | | |
| subj_char.sd(Intercept) | 1.7 (NA to NA) | | | 2.5 (NA to NA) | | |
| Residual.sdObservation | 31 (NA to NA) | | | 4.8 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 13 | | | |
|-----------------------------|--------------------|--------------|---------|----------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 1.6 (-18 to 21) | 0.87 | 0.96 | 0.51 (-3.3 to 4.3) | 0.79 | >0.99 |
| mean_MLexc_COV | 0.03 (-1.2 to 1.3) | 0.96 | 0.96 | 0.00 (-0.24 to 0.24) | >0.99 | >0.99 |
| group_char | | 0.042 | 0.17 | | 0.45 | 0.91 |
| H1000's | _ | | | _ | | |
| H2000's | -41 (-74 to -8.3) | | | -1.3 (-7.2 to 4.6) | | |
| H3000's | -6.6 (-39 to 26) | | | -3.8 (-9.6 to 2.1) | | |
| mean_MLexc_COV * group_char | | 0.12 | 0.23 | | 0.10 | 0.41 |
| mean_MLexc_COV * H2000's | 2.3 (0.06 to 4.5) | | | 0.00 (-0.39 to 0.39) | | |
| mean_MLexc_COV * H3000's | 0.22 (-1.9 to 2.3) | | | 0.37 (0.00 to 0.75) | | |
| subj_char.sd(Intercept) | 4.8 (NA to NA) | | | 2.5 (NA to NA) | | |
| Residual.sdObservation | 31 (NA to NA) | | | 4.8 (NA to NA) | | |

| Changes in | mean_MLexc_mean | for Cluster: | 13 | | | |
|------------------------------|--------------------|--------------|---------|--------------------|---------|---------|
| | Beta D | iv Theta | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -2.1 (-23 to 19) | 0.85 | 0.85 | 0.65 (-3.1 to 4.4) | 0.74 | 0.94 |
| mean_MLexc_mean | 54 (-205 to 314) | 0.68 | 0.85 | -1.7 (-47 to 44) | 0.94 | 0.94 |
| group_char | | 0.091 | 0.18 | | 0.18 | 0.72 |
| H1000's | _ | | | _ | | |
| H2000's | 27 (-3.3 to 57) | | | -1.6 (-7.1 to 3.9) | | |
| H3000's | -3.2 (-31 to 25) | | | 3.2 (-1.9 to 8.4) | | |
| mean_MLexc_mean * group_char | | 0.011 | 0.045 | | 0.70 | 0.94 |
| mean_MLexc_mean * H2000's | -418 (-759 to -77) | | | 3.4 (-56 to 63) | | |
| mean_MLexc_mean * H3000's | -10 (-331 to 311) | | | -17 (-74 to 40) | | |
| subj_char.sd(Intercept) | 3.7 (NA to NA) | | | 2.5 (NA to NA) | | |
| Residual.sdObservation | 30 (NA to NA) | | | 4.9 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 13 | | | |
|---------------------------|-------------------|--------------|---------|---------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -3.8 (-23 to 16) | 0.70 | 0.70 | 0.67 (-2.7 to 4.0) | 0.70 | 0.92 |
| mean_StepDur | 6.3 (-14 to 26) | 0.53 | 0.70 | -0.16 (-3.4 to 3.1) | 0.92 | 0.92 |
| group_char | | 0.003 | 0.006 | | 0.036 | 0.14 |
| H1000's | _ | | | _ | | |
| H2000's | 63 (26 to 100) | | | -0.50 (-6.9 to 5.9) | | |
| H3000's | 4.8 (-28 to 38) | | | 7.1 (1.3 to 13) | | |
| mean_StepDur * group_char | | < 0.001 | < 0.001 | | 0.092 | 0.18 |
| mean_StepDur * H2000's | -95 (-140 to -50) | | | -1.1 (-8.5 to 6.3) | | |
| mean_StepDur * H3000's | -9.8 (-52 to 32) | | | -8.0 (-15 to -0.81) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 2.6 (NA to NA) | | |
| Residual.sdObservation | 30 (NA to NA) | | | 4.8 (NA to NA) | | |

| Changes in | mean_UDexc_COV | for Cluster: | 13 | | | |
|-----------------------------|---------------------|--------------|---------|-----------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 3.5 (-14 to 21) | 0.69 | 0.86 | 0.61 (-2.4 to 3.6) | 0.69 | 0.93 |
| mean_UDexc_COV | -0.12 (-1.4 to 1.2) | 0.86 | 0.86 | -0.01 (-0.22 to 0.21) | 0.95 | 0.95 |
| group_char | | 0.74 | 0.86 | | 0.14 | 0.55 |
| H1000's | _ | | | _ | | |
| H2000's | 2.0 (-25 to 29) | | | -1.4 (-6.1 to 3.3) | | |
| H3000's | -9.8 (-39 to 20) | | | 4.0 (-1.1 to 9.1) | | |
| mean_UDexc_COV * group_char | | 0.42 | 0.86 | | 0.57 | 0.93 |
| mean_UDexc_COV * H2000's | -0.93 (-2.9 to 1.0) | | | 0.01 (-0.31 to 0.33) | | |
| mean_UDexc_COV * H3000's | 0.47 (-1.6 to 2.6) | | | -0.16 (-0.51 to 0.18) | | |
| subj_char.sd(Intercept) | 3.6 (NA to NA) | | | 2.4 (NA to NA) | | |
| Residual.sdObservation | 31 (NA to NA) | | | 4.9 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{-1}}$ CI = Confidence Interval $^{-2}$ False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 13 | | | | |
|------------------------------|-----------------------|----------------|---------|--------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 13 (-7.5 to 33) | 0.22 | 0.27 | 0.44 (-3.0 to 3.9) | 0.80 | 0.96 | |
| mean_UDexc_mean | -444 (-1,233 to 344) | 0.27 | 0.27 | 3.4 (-126 to 133) | 0.96 | 0.96 | |
| group_char | | 0.075 | 0.27 | | 0.84 | 0.96 | |
| H1000's | _ | | | _ | | | |
| H2000's | -36 (-66 to -4.9) | | | -1.3 (-6.6 to 4.0) | | | |
| H3000's | -14 (-44 to 16) | | | 0.30 (-4.9 to 5.5) | | | |
| mean_UDexc_mean * group_char | | 0.22 | 0.27 | | 0.81 | 0.96 | |
| mean_UDexc_mean * H2000's | 1,038 (-137 to 2,214) | | | -2.7 (-196 to 191) | | | |
| mean_UDexc_mean * H3000's | 425 (-734 to 1,584) | | | 56 (-138 to 249) | | | |
| subj_char.sd(Intercept) | 4.5 (NA to NA) | | | 2.5 (NA to NA) | | | |
| Residual.sdObservation | 31 (NA to NA) | | | 4.9 (NA to NA) | | | |

| | 2 5 | 0 60 | | | | |
|-----------------------------|------------------|--------------|---------|-----------------------------------|---------|---------|
| Changes in | mean_StanceDur | for Cluster: | 13 | | | |
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -2.6 (-19 to 14) | 0.76 | 0.76 | $0.65 \ (-2.2 \ \text{to} \ 3.6)$ | 0.66 | 0.88 |
| mean_StanceDur | 3.7 (-8.3 to 16) | 0.55 | 0.73 | -0.10 (-2.0 to 1.8) | 0.92 | 0.92 |
| group_char | | 0.001 | 0.003 | | 0.026 | 0.11 |
| H1000's | _ | | | _ | | |
| H2000's | 54 (23 to 84) | | | -0.77 (-6.1 to 4.5) | | |
| H3000's | 1.4 (-26 to 29) | | | 6.1 (1.2 to 11) | | |
| mean_StanceDur * group_char | | < 0.001 | < 0.001 | | 0.087 | 0.17 |
| mean_StanceDur * H2000's | -61 (-88 to -35) | | | -0.58 (-4.9 to 3.8) | | |
| mean_StanceDur * H3000's | -3.9 (-29 to 21) | | | -4.8 (-9.2 to -0.54) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 2.6 (NA to NA) | | |
| Residual.sd_Observation | 30 (NA to NA) | | | 4.8 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 13 | | | |
|--------------------------------|-------------------|--------------|---------|----------------------|---------|---------|
| - | Beta D | | Theta o | div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -3.8 (-23 to 16) | 0.71 | 0.71 | 0.67 (-2.7 to 4.0) | 0.70 | 0.92 |
| mean_GaitCycleDur | 3.2 (-6.8 to 13) | 0.54 | 0.71 | -0.08 (-1.7 to 1.5) | 0.92 | 0.92 |
| group_char | | 0.003 | 0.006 | | 0.034 | 0.14 |
| H1000's | _ | | | _ | | |
| H2000's | 63 (26 to 100) | | | -0.51 (-6.9 to 5.9) | | |
| H3000's | 4.8 (-28 to 38) | | | 7.2 (1.4 to 13) | | |
| mean_GaitCycleDur * group_char | | < 0.001 | < 0.001 | | 0.088 | 0.18 |
| mean_GaitCycleDur * H2000's | -47 (-70 to -25) | | | -0.56 (-4.2 to 3.1) | | |
| mean_GaitCycleDur * H3000's | -4.9 (-26 to 16) | | | -4.0 (-7.6 to -0.44) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 2.6 (NA to NA) | | |
| Residual.sd_Observation | 30 (NA to NA) | | | 4.8 (NA to NA) | | |
| 1 | | | | | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 13 | | | |
|--------------------------------------|-------------------------|--------------|---------|---------------------|---------|---------|
| | Beta Div Theta | | | Theta div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 8.6 (-7.6 to 25) | 0.30 | 0.38 | 0.43 (-2.4 to 3.2) | 0.76 | 0.93 |
| mean_PeakUpDownVel_mean | -27 (-89 to 34) | 0.38 | 0.38 | 0.42 (-9.5 to 10) | 0.93 | 0.93 |
| group_char | | 0.048 | 0.19 | | 0.74 | 0.93 |
| H1000's | _ | | | _ | | |
| H2000's | -33 (-59 to -6.7) | | | -1.6 (-6.2 to 2.9) | | |
| H3000's | -10 (-35 to 14) | | | -0.04 (-4.3 to 4.2) | | |
| mean_PeakUpDownVel_mean * group_char | | 0.18 | 0.35 | | 0.65 | 0.93 |
| mean_PeakUpDownVel_mean * H2000's | 89 (-5.3 to 184) | | | 1.1 (-14 to 16) | | |
| mean_PeakUpDownVel_mean * H3000's | 29 (-59 to 116) | | | 6.4 (-7.9 to 21) | | |
| subj_char.sd(Intercept) | 4.7 (NA to NA) | | | 2.4 (NA to NA) | | |
| Residual.sdObservation | 31 (NA to NA) | | | 4.9 (NA to NA) | | |

 $[\]overline{\ }^{1}$ CI = Confidence Interval

 $^{^{-1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

 $^{^2}$ False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 8 | | | | |
|-------------------------|---------------------|----------------|---------|-----------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -4.5 (-25 to 16) | 0.67 | 0.67 | 0.03 (-0.77 to 0.83) | 0.94 | 0.94 | |
| mean_APexc_COV | 0.47 (-0.66 to 1.6) | 0.41 | 0.62 | 0.01 (-0.03 to 0.06) | 0.52 | 0.77 | |
| group_char | | 0.14 | 0.41 | | 0.43 | 0.77 | |
| H1000's | _ | | | _ | | | |
| H2000's | -16 (-33 to 0.19) | | | -0.24 (-0.88 to 0.40) | | | |
| H3000's | -13 (-31 to 4.7) | | | 0.17 (-0.52 to 0.86) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 53 (NA to NA) | | | 2.1 (NA to NA) | | | |

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_APexc_mean | for Cluster: | 8 | | | |
|-------------------------|-------------------|--------------|---------|-----------------------|---------|---------|
| | Beta Div Theta | | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 5.4 (-18 to 29) | 0.65 | 0.83 | 1.0 (0.10 to 1.9) | 0.030 | 0.089 |
| mean_APexc_mean | -42 (-434 to 350) | 0.83 | 0.83 | -14 (-29 to 1.6) | 0.080 | 0.12 |
| group_char | | 0.20 | 0.59 | | 0.44 | 0.44 |
| H1000's | _ | | | _ | | |
| H2000's | -14 (-29 to 1.6) | | | -0.29 (-0.89 to 0.31) | | |
| H3000's | -9.5 (-25 to 6.3) | | | 0.10 (-0.51 to 0.71) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 53 (NA to NA) | | | 2.1 (NA to NA) | | |

$LME~EEG \sim 1 + kin + group$

 $^{^{-1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 8 | | | |
|-------------------------|--------------------|--------------|---------|-----------------------|---------|---------|
| | Beta Div Theta | | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -14 (-34 to 5.8) | 0.16 | 0.21 | -0.02 (-0.79 to 0.76) | 0.97 | 0.97 |
| mean_MLexc_COV | 1.2 (-0.02 to 2.4) | 0.054 | 0.16 | 0.02 (-0.03 to 0.07) | 0.42 | 0.63 |
| group_char | | 0.21 | 0.21 | | 0.34 | 0.63 |
| H1000's | _ | | | _ | | |
| H2000's | -13 (-28 to 2.0) | | | -0.15 (-0.73 to 0.44) | | |
| H3000's | -8.6 (-23 to 6.0) | | | 0.31 (-0.26 to 0.88) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 53 (NA to NA) | | | 2.1 (NA to NA) | | |

| Changes in | mean_MLexc_mean | for Cluster: | 8 | | | |
|-------------------------|-------------------|--------------|---------|-----------------------|---------|---------|
| | Beta D | iv Theta | Theta D | iv Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 14 (-4.2 to 31) | 0.13 | 0.23 | 0.63 (-0.07 to 1.3) | 0.077 | 0.23 |
| mean_MLexc_mean | -129 (-315 to 56) | 0.17 | 0.23 | -4.4 (-12 to 2.8) | 0.23 | 0.34 |
| group_char | | 0.23 | 0.23 | | 0.37 | 0.37 |
| H1000's | _ | | | _ | | |
| H2000's | -12 (-28 to 2.5) | | | -0.12 (-0.71 to 0.46) | | |
| H3000's | -8.7 (-23 to 5.9) | | | 0.31 (-0.26 to 0.88) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 53 (NA to NA) | | | 2.1 (NA to NA) | | |

 $^{^{-1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 8 | | | |
|-------------------------|-------------------|--------------|---------|-----------------------|---------|---------|
| | Beta | Div Theta | | Theta D | iv Beta | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 7.8 (-24 to 40) | 0.64 | 0.76 | 0.82 (-0.10 to 1.7) | 0.080 | 0.24 |
| mean_StepDur | -5.1 (-37 to 27) | 0.76 | 0.76 | -0.60 (-1.5 to 0.31) | 0.20 | 0.30 |
| group_char | | 0.34 | 0.76 | | 0.44 | 0.44 |
| H1000's | _ | | | _ | | |
| H2000's | -14 (-35 to 6.8) | | | -0.25 (-0.85 to 0.35) | | |
| H3000's | -0.50 (-22 to 21) | | | 0.16 (-0.45 to 0.76) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 72 (NA to NA) | | | 2.1 (NA to NA) | | |

| Changes in | mean_UDexc_COV | for Cluster: | 8 | | | | |
|-------------------------|----------------------|--------------|---------|-----------------------|----------------|---------|--|
| | Beta D | iv Theta | | Theta D | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 9.0 (-8.0 to 26) | 0.30 | 0.41 | 0.49 (-0.17 to 1.1) | 0.15 | 0.42 | |
| mean_UDexc_COV | -0.47 (-1.6 to 0.64) | 0.41 | 0.41 | -0.02 (-0.06 to 0.03) | 0.42 | 0.42 | |
| group_char | | 0.22 | 0.41 | | 0.32 | 0.42 | |
| H1000's | _ | | | _ | | | |
| H2000's | -13 (-28 to 2.1) | | | -0.14 (-0.72 to 0.45) | | | |
| H3000's | -8.3 (-23 to 6.4) | | | 0.32 (-0.25 to 0.89) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 53 (NA to NA) | | | 2.1 (NA to NA) | | | |

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 8 | | | |
|-------------------------|--------------------|--------------|---------|-----------------------|---------|---------|
| | Beta D | iv Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -11 (-29 to 7.7) | 0.26 | 0.26 | 0.02 (-0.70 to 0.74) | 0.95 | 0.95 |
| mean_UDexc_mean | 579 (-85 to 1,242) | 0.087 | 0.25 | 10 (-16 to 36) | 0.44 | 0.65 |
| group_char | | 0.17 | 0.25 | | 0.36 | 0.65 |
| H1000's | _ | | | _ | | |
| H2000's | -14 (-29 to 1.3) | | | -0.16 (-0.74 to 0.42) | | |
| H3000's | -9.6 (-24 to 5.0) | | | 0.29 (-0.28 to 0.86) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 53 (NA to NA) | | | 2.1 (NA to NA) | | |

| Changes in | mean_StanceDur | for Cluster: | 8 | | | |
|-------------------------|-------------------|--------------|---------|-----------------------|---------|---------|
| | Beta | Div Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 6.5 (-21 to 34) | 0.64 | 0.78 | 0.76 (-0.02 to 1.5) | 0.056 | 0.17 |
| mean_StanceDur | -2.8 (-22 to 17) | 0.78 | 0.78 | -0.39 (-0.94 to 0.16) | 0.16 | 0.24 |
| group_char | | 0.34 | 0.78 | | 0.42 | 0.42 |
| H1000's | _ | | | _ | | |
| H2000's | -14 (-35 to 6.9) | | | -0.24 (-0.84 to 0.35) | | |
| H3000's | -0.20 (-21 to 21) | | | 0.17 (-0.42 to 0.76) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 72 (NA to NA) | | | 2.1 (NA to NA) | | |

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 8 | | | | |
|-------------------------|-------------------|----------------|---------|-----------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 7.7 (-24 to 40) | 0.64 | 0.76 | 0.81 (-0.10 to 1.7) | 0.081 | 0.24 | |
| mean_GaitCycleDur | -2.5 (-19 to 14) | 0.76 | 0.76 | -0.30 (-0.76 to 0.16) | 0.20 | 0.30 | |
| group_char | | 0.34 | 0.76 | | 0.44 | 0.44 | |
| H1000's | _ | | | _ | | | |
| H2000's | -14 (-35 to 6.8) | | | -0.25 (-0.85 to 0.35) | | | |
| H3000's | -0.49 (-22 to 21) | | | 0.16 (-0.45 to 0.76) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 72 (NA to NA) | | | 2.1 (NA to NA) | | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 8 | | | |
|-------------------------|-------------------------|----------------|---------|-----------------------|---------|---------|
| | Beta Div T | Theta Div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -6.6 (-22 to 8.9) | 0.40 | 0.40 | 0.01 (-0.60 to 0.61) | 0.98 | 0.98 |
| mean_PeakUpDownVel_mean | 41 (-11 to 93) | 0.12 | 0.21 | 1.1 (-0.93 to 3.1) | 0.29 | 0.57 |
| group_char | | 0.14 | 0.21 | | 0.38 | 0.57 |
| H1000's | _ | | | _ | | |
| H2000's | -14 (-29 to 0.72) | | | -0.18 (-0.76 to 0.41) | | |
| H3000's | -10 (-25 to 4.4) | | | 0.26 (-0.31 to 0.83) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sd_Observation | 53 (NA to NA) | | | 2.1 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{-1}}$ CI = Confidence Interval $^{-2}$ False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 9 | | | |
|-------------------------|----------------------|--------------|---------|-----------------------|---------|---------|
| | Beta D | iv Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -5.7 (-16 to 4.7) | 0.28 | 0.49 | 5.2 (-2.8 to 13) | 0.20 | 0.61 |
| mean_APexc_COV | 0.04 (-0.51 to 0.59) | 0.87 | 0.87 | -0.18 (-0.59 to 0.24) | 0.41 | 0.61 |
| group_char | | 0.33 | 0.49 | | 0.82 | 0.82 |
| H1000's | _ | | | _ | | |
| H2000's | 7.0 (-2.3 to 16) | | | -0.55 (-8.0 to 6.9) | | |
| H3000's | 5.2 (-4.0 to 14) | | | 1.6 (-5.8 to 8.9) | | |
| subj_char.sd(Intercept) | 2.6 (NA to NA) | | | 4.6 (NA to NA) | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_APexc_mean | for Cluster: | 9 | | | | |
|-------------------------|-------------------|----------------|---------|---------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | Theta | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -1.2 (-14 to 12) | 0.86 | 0.86 | -3.3 (-13 to 6.6) | 0.51 | 0.76 | |
| mean_APexc_mean | -67 (-278 to 143) | 0.53 | 0.80 | 102 (-52 to 256) | 0.20 | 0.59 | |
| group_char | | 0.36 | 0.80 | | 0.82 | 0.82 | |
| H1000's | _ | | | _ | | | |
| H2000's | 6.4 (-2.6 to 15) | | | -0.35 (-7.4 to 6.7) | | | |
| H3000's | 4.5 (-3.9 to 13) | | | 1.6 (-5.0 to 8.2) | | | |
| subj_char.sd(Intercept) | 2.1 (NA to NA) | | | 3.9 (NA to NA) | | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | | |

 $^{^{1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 9 | | | |
|-------------------------|----------------------|--------------|---------|-----------------------|---------|---------|
| | Beta D | iv Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -8.5 (-20 to 3.0) | 0.15 | 0.29 | 5.8 (-3.1 to 15) | 0.20 | 0.57 |
| mean_MLexc_COV | 0.24 (-0.43 to 0.90) | 0.49 | 0.49 | -0.22 (-0.73 to 0.28) | 0.38 | 0.57 |
| group_char | | 0.19 | 0.29 | | 0.87 | 0.87 |
| H1000's | _ | | | _ | | |
| H2000's | 7.3 (-1.2 to 16) | | | -1.7 (-8.7 to 5.2) | | |
| H3000's | 5.8 (-2.1 to 14) | | | -0.17 (-6.6 to 6.3) | | |
| subj_char.sd(Intercept) | 2.3 (NA to NA) | | | 4.5 (NA to NA) | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_MLexc_mean | for Cluster: | 9 | | | |
|-------------------------|-------------------|--------------|----------------|---------------------|---------|---------|
| | Beta Div Theta | | Theta Div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -2.6 (-12 to 7.1) | 0.60 | 0.60 | -1.3 (-8.7 to 6.0) | 0.72 | 0.85 |
| mean_MLexc_mean | -30 (-127 to 67) | 0.55 | 0.60 | 47 (-24 to 119) | 0.20 | 0.59 |
| group_char | | 0.18 | 0.55 | | 0.85 | 0.85 |
| H1000's | _ | | | _ | | |
| H2000's | 7.4 (-1.1 to 16) | | | -1.9 (-8.7 to 4.9) | | |
| H3000's | 5.9 (-2.1 to 14) | | | -0.47 (-6.8 to 5.9) | | |
| subj_char.sd(Intercept) | 2.2 (NA to NA) | | | 4.2 (NA to NA) | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 9 | | | |
|-------------------------|-------------------|--------------|---------|---------------------|---------|---------|
| | Beta | Div Theta | , | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -6.6 (-20 to 6.6) | 0.33 | 0.49 | -3.4 (-13 to 6.3) | 0.49 | 0.74 |
| mean_StepDur | 1.7 (-11 to 14) | 0.79 | 0.79 | 6.3 (-2.9 to 15) | 0.18 | 0.54 |
| group_char | | 0.21 | 0.49 | | 0.80 | 0.80 |
| H1000's | _ | | | _ | | |
| H2000's | 7.6 (-1.2 to 16) | | | -0.56 (-7.5 to 6.4) | | |
| H3000's | 6.0 (-2.4 to 14) | | | 1.6 (-5.0 to 8.2) | | |
| subj_char.sd(Intercept) | 2.3 (NA to NA) | | | 4.0 (NA to NA) | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | |

 $^{^{1}}$ CI = Confidence Interval

| Changes in | mean_UDexc_COV | for Cluster: | 9 | | | | |
|-------------------------|----------------------|--------------|---------|----------------------|----------------|---------|--|
| | Beta D | iv Theta | | Theta I | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -5.2 (-15 to 4.4) | 0.29 | 0.43 | -1.6 (-8.8 to 5.7) | 0.67 | 0.81 | |
| mean_UDexc_COV | 0.01 (-0.60 to 0.63) | 0.96 | 0.96 | 0.33 (-0.12 to 0.77) | 0.15 | 0.46 | |
| group_char | | 0.21 | 0.43 | | 0.81 | 0.81 | |
| H1000's | _ | | | _ | | | |
| H2000's | 7.2 (-1.3 to 16) | | | -2.2 (-9.0 to 4.7) | | | |
| H3000's | 5.5 (-2.5 to 13) | | | -0.40 (-6.8 to 6.0) | | | |
| subj_char.sd(Intercept) | 2.3 (NA to NA) | | | 4.3 (NA to NA) | | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | | |

 $^{^2}$ False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 9 | | | |
|-------------------------|--------------------|--------------|---------|--------------------|---------|---------|
| | Beta D | iv Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -4.8 (-15 to 5.5) | 0.36 | 0.54 | 6.9 (-0.88 to 15) | 0.083 | 0.25 |
| mean_UDexc_mean | -8.6 (-363 to 346) | 0.96 | 0.96 | -182 (-441 to 76) | 0.17 | 0.25 |
| group_char | | 0.20 | 0.54 | | 0.80 | 0.80 |
| H1000's | _ | | | _ | | |
| H2000's | 7.2 (-1.3 to 16) | | | -1.8 (-8.6 to 5.0) | | |
| H3000's | 5.5 (-2.4 to 13) | | | 0.29 (-6.0 to 6.6) | | |
| subj_char.sd(Intercept) | 2.4 (NA to NA) | | | 4.2 (NA to NA) | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | |
| | • | | | | | |

| Changes in | mean_StanceDur | for Cluster: | 9 | | | |
|-------------------------|-------------------|--------------|---------|---------------------|---------|---------|
| | Beta | Div Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -6.7 (-18 to 4.7) | 0.25 | 0.37 | -2.1 (-11 to 6.3) | 0.62 | 0.82 |
| mean_StanceDur | 1.3 (-6.3 to 8.9) | 0.74 | 0.74 | 3.6 (-1.9 to 9.1) | 0.20 | 0.60 |
| group_char | | 0.19 | 0.37 | | 0.82 | 0.82 |
| H1000's | _ | | | _ | | |
| H2000's | 7.6 (-1.1 to 16) | | | -0.77 (-7.7 to 6.1) | | |
| H3000's | 6.0 (-2.2 to 14) | | | 1.3 (-5.2 to 7.8) | | |
| subj_char.sd(Intercept) | 2.3 (NA to NA) | | | 4.0 (NA to NA) | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | |

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 9 | | | |
|-------------------------|--------------------|--------------|---------|---------------------|---------|---------|
| | Beta D | iv Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -6.6 (-20 to 6.6) | 0.33 | 0.49 | -3.4 (-13 to 6.3) | 0.49 | 0.74 |
| mean_GaitCycleDur | 0.86 (-5.5 to 7.2) | 0.79 | 0.79 | 3.1 (-1.4 to 7.7) | 0.18 | 0.54 |
| group_char | | 0.21 | 0.49 | | 0.80 | 0.80 |
| H1000's | _ | | | _ | | |
| H2000's | 7.6 (-1.2 to 16) | | | -0.56 (-7.5 to 6.4) | | |
| H3000's | 6.0 (-2.4 to 14) | | | 1.6 (-5.0 to 8.2) | | |
| subj_char.sd(Intercept) | 2.3 (NA to NA) | | | 4.0 (NA to NA) | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 9 | | | |
|-------------------------|-------------------------|----------------|---------|--------------------|---------|---------|
| | Beta Div T | Theta Div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -6.0 (-15 to 2.8) | 0.18 | 0.32 | 5.9 (-0.70 to 13) | 0.080 | 0.24 |
| mean_PeakUpDownVel_mean | 4.0 (-24 to 32) | 0.78 | 0.78 | -14 (-35 to 5.6) | 0.16 | 0.24 |
| group_char | | 0.21 | 0.32 | | 0.84 | 0.84 |
| H1000's | _ | | | _ | | |
| H2000's | 7.2 (-1.4 to 16) | | | -1.5 (-8.2 to 5.3) | | |
| H3000's | 5.4 (-2.5 to 13) | | | 0.45 (-5.8 to 6.7) | | |
| subj_char.sd(Intercept) | 2.5 (NA to NA) | | | 4.0 (NA to NA) | | |
| Residual.sdObservation | 21 (NA to NA) | | | 15 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 10 | | | | |
|-------------------------|-----------------------|----------------|---------|----------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 6.3 (-5.6 to 18) | 0.30 | 0.45 | 0.60 (-7.8 to 9.0) | 0.89 | 0.94 | |
| mean_APexc_COV | -0.17 (-0.78 to 0.44) | 0.58 | 0.58 | 0.01 (-0.38 to 0.41) | 0.94 | 0.94 | |
| group_char | | 0.016 | 0.048 | | 0.38 | 0.94 | |
| H1000's | _ | | | _ | | | |
| H2000's | -9.6 (-20 to 0.93) | | | 3.8 (-4.8 to 12) | | | |
| H3000's | 5.4 (-5.2 to 16) | | | -2.2 (-10 to 6.0) | | | |
| subj_char.sd(Intercept) | 6.9 (NA to NA) | | | 8.7 (NA to NA) | | | |
| Residual.sdObservation | 23 (NA to NA) | | | 13 (NA to NA) | | | |

| Changes in | mean_APexc_mean | for Cluster: | 10 | | | |
|-------------------------|--------------------|--------------|---------|--------------------|----------|---------|
| | Beta D | iv Theta | , | Theta | Div Beta | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 18 (4.3 to 32) | 0.010 | 0.015 | 1.0 (-8.2 to 10) | 0.83 | 0.97 |
| mean_APexc_mean | -273 (-502 to -44) | 0.019 | 0.019 | -2.7 (-144 to 139) | 0.97 | 0.97 |
| group_char | | 0.009 | 0.015 | | 0.37 | 0.97 |
| H1000's | _ | | | _ | | |
| H2000's | -14 (-24 to -3.4) | | | 3.8 (-4.7 to 12) | | |
| H3000's | 0.66 (-8.4 to 9.8) | | | -2.1 (-9.5 to 5.3) | | |
| subj_char.sd(Intercept) | 6.7 (NA to NA) | | | 8.7 (NA to NA) | | |
| Residual.sdObservation | 23 (NA to NA) | | | 13 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 10 | | | | |
|-------------------------|----------------------|----------------|---------|----------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 1.9 (-11 to 15) | 0.77 | 0.78 | -3.0 (-12 to 5.9) | 0.51 | 0.51 | |
| mean_MLexc_COV | 0.11 (-0.67 to 0.89) | 0.78 | 0.78 | 0.26 (-0.24 to 0.76) | 0.30 | 0.49 | |
| group_char | | 0.021 | 0.064 | | 0.33 | 0.49 | |
| H1000's | _ | | | _ | | | |
| H2000's | -10 (-20 to -0.18) | | | 4.3 (-4.1 to 13) | | | |
| H3000's | 3.8 (-5.0 to 13) | | | -2.1 (-9.3 to 5.2) | | | |
| subj_char.sd(Intercept) | 6.7 (NA to NA) | | | 8.8 (NA to NA) | | | |
| Residual.sdObservation | 23 (NA to NA) | | | 13 (NA to NA) | | | |

| Changes in | mean_MLexc_mean | for Cluster: | 10 | | | | |
|-------------------------|--------------------|----------------|---------|--------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 13 (2.8 to 24) | 0.013 | 0.021 | 6.7 (-0.56 to 14) | 0.071 | 0.11 | |
| mean_MLexc_mean | -120 (-222 to -19) | 0.020 | 0.021 | -72 (-135 to -8.8) | 0.026 | 0.077 | |
| group_char | | 0.021 | 0.021 | | 0.36 | 0.36 | |
| H1000's | _ | | | _ | | | |
| H2000's | -9.7 (-20 to 0.45) | | | 4.3 (-3.9 to 12) | | | |
| H3000's | 4.5 (-4.4 to 13) | | | -1.6 (-8.8 to 5.6) | | | |
| subj_char.sd(Intercept) | 7.4 (NA to NA) | | | 8.6 (NA to NA) | | | |
| Residual.sdObservation | 22 (NA to NA) | | | 13 (NA to NA) | | | |

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¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 10 | | | |
|-------------------------|--------------------|--------------|---------|-------------------|---------|---------|
| | Beta | Div Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 16 (2.0 to 30) | 0.025 | 0.038 | 4.1 (-5.0 to 13) | 0.38 | 0.39 |
| mean_StepDur | -14 (-27 to -0.02) | 0.050 | 0.050 | -3.5 (-12 to 4.6) | 0.39 | 0.39 |
| group_char | | 0.016 | 0.038 | | 0.34 | 0.39 |
| H1000's | _ | | | _ | | |
| H2000's | -13 (-23 to -2.5) | | | 3.3 (-5.1 to 12) | | |
| H3000's | 0.70 (-8.5 to 10) | | | -2.8 (-10 to 4.6) | | |
| subj_char.sd(Intercept) | 6.9 (NA to NA) | | | 8.7 (NA to NA) | | |
| Residual.sdObservation | 23 (NA to NA) | | | 13 (NA to NA) | | |

| <u> </u> | IID COV | f Cl | 10 | | | |
|-------------------------|-----------------------|--------------|---------|-----------------------|---------|---------|
| Changes in | mean_UDexc_COV | for Cluster: | 10 | _ | | |
| | Beta D | iv Theta | | Theta I | iv Beta | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 13 (3.4 to 24) | 0.009 | 0.015 | 2.5 (-4.6 to 9.7) | 0.48 | 0.49 |
| mean_UDexc_COV | -0.79 (-1.4 to -0.16) | 0.014 | 0.015 | -0.13 (-0.52 to 0.25) | 0.49 | 0.49 |
| group_char | | 0.015 | 0.015 | | 0.38 | 0.49 |
| H1000's | _ | | | _ | | |
| H2000's | -10 (-20 to -0.11) | | | 3.9 (-4.4 to 12) | | |
| H3000's | 4.5 (-4.2 to 13) | | | -1.9 (-9.2 to 5.3) | | |
| subj_char.sd(Intercept) | 6.7 (NA to NA) | | | 8.7 (NA to NA) | | |
| Residual.sdObservation | 23 (NA to NA) | | | 13 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 10 | | | |
|-------------------------|-------------------|--------------|---------|--------------------|----------|---------|
| | Beta D | iv Theta | , | Theta | Div Beta | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -8.0 (-18 to 2.5) | 0.13 | 0.13 | -1.6 (-8.9 to 5.7) | 0.67 | 0.67 |
| mean_UDexc_mean | 508 (142 to 874) | 0.007 | 0.020 | 108 (-117 to 334) | 0.35 | 0.53 |
| group_char | | 0.024 | 0.037 | | 0.35 | 0.53 |
| H1000's | _ | | | _ | | |
| H2000's | -12 (-22 to -1.3) | | | 3.6 (-4.7 to 12) | | |
| H3000's | 2.0 (-7.0 to 11) | | | -2.4 (-9.7 to 4.8) | | |
| subj_char.sd(Intercept) | 7.6 (NA to NA) | | | 8.7 (NA to NA) | | |
| Residual.sdObservation | 22 (NA to NA) | | | 13 (NA to NA) | | |

| Changes in | mean_StanceDur | for Cluster: | 10 | | | |
|-------------------------|--------------------|--------------|---------|--------------------|---------|---------|
| | Beta | Div Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 13 (1.0 to 25) | 0.033 | 0.050 | 3.5 (-4.4 to 11) | 0.39 | 0.39 |
| mean_StanceDur | -7.7 (-16 to 0.51) | 0.066 | 0.066 | -2.1 (-7.0 to 2.7) | 0.39 | 0.39 |
| group_char | | 0.017 | 0.050 | | 0.35 | 0.39 |
| H1000's | _ | | | _ | | |
| H2000's | -12 (-23 to -2.1) | | | 3.3 (-5.0 to 12) | | |
| H3000's | 1.3 (-7.8 to 10) | | | -2.7 (-10 to 4.7) | | |
| subj_char.sd(Intercept) | 6.9 (NA to NA) | | | 8.7 (NA to NA) | | |
| Residual.sdObservation | 23 (NA to NA) | | | 13 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 10 | | | |
|-------------------------|---------------------|--------------|---------|--------------------|---------|---------|
| | Beta D | iv Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 16 (2.1 to 30) | 0.024 | 0.036 | 4.0 (-5.0 to 13) | 0.38 | 0.39 |
| mean_GaitCycleDur | -6.9 (-14 to -0.06) | 0.048 | 0.048 | -1.8 (-5.8 to 2.3) | 0.39 | 0.39 |
| group_char | | 0.016 | 0.036 | | 0.34 | 0.39 |
| H1000's | _ | | | _ | | |
| H2000's | -13 (-23 to -2.5) | | | 3.3 (-5.1 to 12) | | |
| H3000's | 0.69 (-8.6 to 9.9) | | | -2.8 (-10 to 4.6) | | |
| subj_char.sd(Intercept) | 6.9 (NA to NA) | | | 8.7 (NA to NA) | | |
| Residual.sdObservation | 23 (NA to NA) | | | 13 (NA to NA) | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 10 | | | | |
|-------------------------|-------------------------|----------------|---------|--------------------|----------------|---------|--|
| | Beta Div T | Beta Div Theta | | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -6.7 (-15 to 2.1) | 0.13 | 0.13 | -1.0 (-7.4 to 5.4) | 0.75 | 0.75 | |
| mean_PeakUpDownVel_mean | 44 (17 to 71) | 0.001 | 0.003 | 8.2 (-8.1 to 25) | 0.32 | 0.53 | |
| group_char | | 0.018 | 0.027 | | 0.35 | 0.53 | |
| H1000's | | | | _ | | | |
| H2000's | -12 (-22 to -2.0) | | | 3.6 (-4.7 to 12) | | | |
| H3000's | 1.5 (-7.3 to 10) | | | -2.5 (-9.8 to 4.8) | | | |
| subj_char.sd(Intercept) | 7.0 (NA to NA) | | | 8.7 (NA to NA) | | | |
| Residual.sdObservation | 22 (NA to NA) | | | 13 (NA to NA) | | | |

 $^{^{1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 11 | | | |
|-------------------------|--------------------|--------------|---------|-----------------------|---------|---------|
| | Beta D | iv Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -17 (-50 to 16) | 0.32 | 0.32 | 3.3 (-2.1 to 8.7) | 0.23 | 0.64 |
| mean_APexc_COV | 1.2 (-0.60 to 3.0) | 0.19 | 0.32 | -0.07 (-0.37 to 0.22) | 0.64 | 0.64 |
| group_char | | 0.26 | 0.32 | | 0.48 | 0.64 |
| H1000's | _ | | | _ | | |
| H2000's | -17 (-44 to 10) | | | -2.0 (-6.5 to 2.4) | | |
| H3000's | -26 (-58 to 5.7) | | | 0.22 (-5.0 to 5.4) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 79 (NA to NA) | | | 13 (NA to NA) | | |

| Changes in | mean_APexc_mean | for Cluster: | 11 | | | | |
|-------------------------|-------------------|----------------|---------|---------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -5.1 (-47 to 36) | 0.81 | 0.81 | 0.35 (-6.4 to 7.1) | 0.92 | 0.92 | |
| mean_APexc_mean | 137 (-564 to 839) | 0.70 | 0.81 | 34 (-80 to 148) | 0.56 | 0.84 | |
| group_char | | 0.72 | 0.81 | | 0.51 | 0.84 | |
| H1000's | _ | | | _ | | | |
| H2000's | -8.1 (-34 to 18) | | | -2.1 (-6.3 to 2.0) | | | |
| H3000's | -11 (-37 to 16) | | | -0.08 (-4.4 to 4.3) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sd Observation | 79 (NA to NA) | | | 13 (NA to NA) | | | |

 $^{^{1}}$ CI = Confidence Interval 2 False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 11 | | | | |
|-------------------------|--------------------|--------------|---------|-----------------------|---------|---------|--|
| | Beta D | iv Theta | | Theta Div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -8.9 (-44 to 27) | 0.63 | 0.63 | 3.4 (-2.3 to 9.2) | 0.24 | 0.63 | |
| mean_MLexc_COV | 0.79 (-1.4 to 3.0) | 0.49 | 0.63 | -0.09 (-0.45 to 0.27) | 0.63 | 0.63 | |
| group_char | | 0.56 | 0.63 | | 0.43 | 0.63 | |
| H1000's | _ | | | _ | | | |
| H2000's | -9.1 (-34 to 16) | | | -2.5 (-6.5 to 1.5) | | | |
| H3000's | -13 (-38 to 11) | | | -0.52 (-4.5 to 3.5) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 79 (NA to NA) | | | 13 (NA to NA) | | | |

| Changes in | mean_MLexc_mean | for Cluster: | 11 | | | |
|-------------------------|-------------------|--------------|---------|---------------------|---------|---------|
| | Beta D | iv Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | -0.12 (-30 to 29) | >0.99 | >0.99 | 0.47 (-4.3 to 5.3) | 0.85 | 0.85 |
| mean_MLexc_mean | 30 (-269 to 328) | 0.85 | >0.99 | 21 (-27 to 70) | 0.39 | 0.59 |
| group_char | | 0.57 | >0.99 | | 0.39 | 0.59 |
| H1000's | _ | | | _ | | |
| H2000's | -9.8 (-35 to 15) | | | -2.7 (-6.7 to 1.3) | | |
| H3000's | -13 (-37 to 12) | | | -0.60 (-4.6 to 3.4) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sd Observation | 79 (NA to NA) | | | 13 (NA to NA) | | |

 $^{^{1}}$ CI = Confidence Interval

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{2}}$ False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 11 | | | | |
|-------------------------|------------------|--------------|---------|---------------------|---------|---------|--|
| | Beta | Div Theta | • | Theta Div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -2.6 (-44 to 39) | 0.90 | 0.90 | -0.25 (-7.0 to 6.5) | 0.94 | 0.94 | |
| mean_StepDur | 5.4 (-37 to 47) | 0.80 | 0.90 | 2.7 (-4.1 to 9.5) | 0.44 | 0.73 | |
| group_char | | 0.68 | 0.90 | | 0.49 | 0.73 | |
| H1000's | _ | | | _ | | | |
| H2000's | -8.7 (-34 to 17) | | | -2.1 (-6.2 to 2.0) | | | |
| H3000's | -11 (-38 to 16) | | | 0.11 (-4.3 to 4.5) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 79 (NA to NA) | | | 13 (NA to NA) | | | |

| Changes in | mean_UDexc_COV | for Cluster: | 11 | | | | |
|-------------------------|--------------------|--------------|---------|-----------------------|---------|---------|--|
| | Beta D | iv Theta | | Theta Div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -11 (-40 to 19) | 0.47 | 0.49 | 2.3 (-2.5 to 7.1) | 0.36 | 0.68 | |
| mean_UDexc_COV | 1.0 (-0.88 to 3.0) | 0.29 | 0.49 | -0.01 (-0.32 to 0.31) | 0.97 | 0.97 | |
| group_char | | 0.49 | 0.49 | | 0.45 | 0.68 | |
| H1000's | _ | | | _ | | | |
| H2000's | -11 (-35 to 14) | | | -2.5 (-6.5 to 1.5) | | | |
| H3000's | -14 (-39 to 10) | | | -0.57 (-4.6 to 3.5) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 79 (NA to NA) | | | 13 (NA to NA) | | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 11 | | | |
|-------------------------|---------------------|----------------|---------|---------------------|---------|---------|
| | Beta D | Beta Div Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 25 (-5.2 to 55) | 0.10 | 0.16 | 1.3 (-3.6 to 6.2) | 0.59 | 0.68 |
| mean_UDexc_mean | -950 (-1,993 to 94) | 0.074 | 0.16 | 36 (-135 to 207) | 0.68 | 0.68 |
| group_char | | 0.65 | 0.65 | | 0.45 | 0.68 |
| H1000's | _ | | | _ | | |
| H2000's | -9.2 (-34 to 15) | | | -2.5 (-6.5 to 1.5) | | |
| H3000's | -11 (-35 to 14) | | | -0.66 (-4.7 to 3.4) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 79 (NA to NA) | | | 13 (NA to NA) | | |

| Changes in | mean_StanceDur | for Cluster: | 11 | | | | | |
|-------------------------|------------------|----------------|---------|---------------------|----------------|---------|--|--|
| | Beta | Beta Div Theta | | | Theta Div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | | |
| (Intercept) | -1.6 (-37 to 34) | 0.93 | 0.93 | 0.33 (-5.4 to 6.1) | 0.91 | 0.91 | | |
| mean_StanceDur | 3.2 (-22 to 28) | 0.80 | 0.93 | 1.5 (-2.6 to 5.6) | 0.47 | 0.73 | | |
| group_char | | 0.66 | 0.93 | | 0.49 | 0.73 | | |
| H1000's | _ | | | _ | | | | |
| H2000's | -8.8 (-34 to 16) | | | -2.2 (-6.3 to 1.9) | | | | |
| H3000's | -12 (-38 to 15) | | | -0.05 (-4.3 to 4.2) | | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | | |
| Residual.sd_Observation | 79 (NA to NA) | | | 13 (NA to NA) | | | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 11 | | | | |
|-------------------------|-------------------|----------------|---------|---------------------|----------------|---------|--|
| | Beta D | Beta Div Theta | | Theta | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -2.6 (-44 to 39) | 0.90 | 0.90 | -0.24 (-7.0 to 6.5) | 0.94 | 0.94 | |
| mean_GaitCycleDur | 2.7 (-18 to 24) | 0.80 | 0.90 | 1.3 (-2.1 to 4.7) | 0.44 | 0.73 | |
| group_char | | 0.68 | 0.90 | | 0.49 | 0.73 | |
| H1000's | _ | | | _ | | | |
| H2000's | -8.7 (-34 to 17) | | | -2.1 (-6.2 to 2.0) | | | |
| H3000's | -11 (-38 to 16) | | | 0.11 (-4.3 to 4.5) | | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 79 (NA to NA) | | | 13 (NA to NA) | | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 11 | | | |
|-------------------------|-------------------------|----------------|---------|---------------------|---------|---------|
| | Beta Div T | Theta Div Beta | | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 23 (-2.8 to 48) | 0.081 | 0.12 | 1.7 (-2.5 to 5.9) | 0.43 | 0.67 |
| mean_PeakUpDownVel_mean | -87 (-169 to -5.2) | 0.037 | 0.11 | 2.1 (-11 to 16) | 0.77 | 0.77 |
| group_char | | 0.75 | 0.75 | | 0.44 | 0.67 |
| H1000's | _ | | | _ | | |
| H2000's | -7.7 (-32 to 17) | | | -2.5 (-6.6 to 1.5) | | |
| H3000's | -8.6 (-33 to 16) | | | -0.68 (-4.7 to 3.4) | | |
| subj_char.sd(Intercept) | 0.00 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sd_Observation | 79 (NA to NA) | | | 13 (NA to NA) | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_APexc_COV | for Cluster: | 12 | | | | |
|-------------------------|----------------------|--------------|---------|-----------------------|---------|---------|--|
| | Beta D | iv Theta | | Theta Div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 6.1 (-12 to 25) | 0.52 | 0.52 | 0.14 (-6.2 to 6.5) | 0.96 | 0.96 | |
| mean_APexc_COV | -0.35 (-1.3 to 0.64) | 0.49 | 0.52 | -0.07 (-0.42 to 0.28) | 0.68 | 0.96 | |
| group_char | | 0.44 | 0.52 | | 0.39 | 0.96 | |
| H1000's | _ | | | _ | | | |
| H2000's | -2.7 (-19 to 14) | | | 3.8 (-1.6 to 9.1) | | | |
| H3000's | 7.0 (-10 to 24) | | | 2.0 (-3.6 to 7.7) | | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | | |

| - C1 · | A.D. | C C1 / | 10 | | | | |
|-------------------------|--------------------|--------------|---------|--------------------|----------------|---------|--|
| Changes in | mean_APexc_mean | for Cluster: | 12 | | | | |
| | Beta D | iv Theta | | Theta | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 9.3 (-11 to 30) | 0.38 | 0.57 | -2.0 (-9.3 to 5.4) | 0.60 | 0.77 | |
| mean_APexc_mean | -159 (-488 to 171) | 0.35 | 0.57 | 18 (-103 to 139) | 0.77 | 0.77 | |
| group_char | | 0.58 | 0.58 | | 0.40 | 0.77 | |
| H1000's | _ | | | _ | | | |
| H2000's | -6.3 (-22 to 9.1) | | | 3.4 (-1.5 to 8.3) | | | |
| H3000's | 1.4 (-13 to 16) | | | 1.6 (-3.3 to 6.4) | | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sd Observation | 39 (NA to NA) | | | 15 (NA to NA) | | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_MLexc_COV | for Cluster: | 12 | | | | |
|-------------------------|----------------------|--------------|---------|-----------------------|---------|---------|--|
| | Beta D | iv Theta | | Theta Div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 6.3 (-12 to 25) | 0.51 | 0.51 | 0.94 (-5.6 to 7.5) | 0.78 | 0.78 | |
| mean_MLexc_COV | -0.38 (-1.5 to 0.68) | 0.48 | 0.51 | -0.13 (-0.51 to 0.25) | 0.50 | 0.75 | |
| group_char | | 0.50 | 0.51 | | 0.45 | 0.75 | |
| H1000's | _ | | | _ | | | |
| H2000's | -5.4 (-21 to 9.6) | | | 3.1 (-1.7 to 8.0) | | | |
| H3000's | 3.5 (-11 to 18) | | | 1.3 (-3.3 to 5.8) | | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | | |

| Changes in | mean_MLexc_mean | for Cluster: | 12 | | | |
|-------------------------|-------------------|--------------|---------|--------------------|----------|---------|
| | Beta D | iv Theta | | Theta | Div Beta | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 2.8 (-13 to 18) | 0.72 | 0.72 | -1.2 (-6.6 to 4.2) | 0.67 | 0.94 |
| mean_MLexc_mean | -28 (-178 to 122) | 0.71 | 0.72 | 2.1 (-53 to 57) | 0.94 | 0.94 |
| group_char | | 0.56 | 0.72 | | 0.44 | 0.94 |
| H1000's | _ | | | _ | | |
| H2000's | -4.6 (-20 to 11) | | | 3.2 (-1.7 to 8.2) | | |
| H3000's | 3.7 (-10 to 18) | | | 1.3 (-3.2 to 5.9) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | |

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_StepDur | for Cluster: | 12 | | | |
|-------------------------|-------------------|--------------|---------|--------------------|---------|---------|
| | Beta | Div Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 5.6 (-15 to 26) | 0.60 | 0.60 | -1.0 (-8.6 to 6.5) | 0.79 | >0.99 |
| mean_StepDur | -5.4 (-25 to 14) | 0.59 | 0.60 | 0.04 (-7.4 to 7.5) | >0.99 | >0.99 |
| group_char | | 0.55 | 0.60 | | 0.43 | >0.99 |
| H1000's | _ | | | _ | | |
| H2000's | -5.9 (-21 to 9.4) | | | 3.3 (-1.7 to 8.2) | | |
| H3000's | 2.2 (-13 to 17) | | | 1.3 (-3.5 to 6.2) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_UDexc_COV | for Cluster: | 12 | | | | |
|-------------------------|---------------------|--------------|---------|----------------------|---------|---------|--|
| | Beta D | iv Theta | | Theta Div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | -0.34 (-16 to 15) | 0.97 | 0.97 | -1.2 (-6.6 to 4.2) | 0.66 | 0.93 | |
| mean_UDexc_COV | 0.07 (-0.86 to 1.0) | 0.88 | 0.97 | 0.02 (-0.34 to 0.37) | 0.93 | 0.93 | |
| group_char | | 0.52 | 0.97 | | 0.42 | 0.93 | |
| H1000's | _ | | | _ | | | |
| H2000's | -5.2 (-20 to 9.9) | | | 3.2 (-1.6 to 8.1) | | | |
| H3000's | 3.5 (-11 to 18) | | | 1.3 (-3.3 to 5.9) | | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

| Changes in | mean_UDexc_mean | for Cluster: | 12 | | | |
|-------------------------|--------------------|--------------|---------|--------------------|---------|---------|
| | Beta D | iv Theta | | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 4.0 (-13 to 21) | 0.64 | 0.64 | -2.0 (-7.9 to 4.0) | 0.52 | 0.71 |
| mean_UDexc_mean | -146 (-708 to 416) | 0.61 | 0.64 | 40 (-169 to 250) | 0.71 | 0.71 |
| group_char | | 0.53 | 0.64 | | 0.44 | 0.71 |
| H1000's | _ | | | _ | | |
| H2000's | -4.8 (-20 to 10) | | | 3.2 (-1.7 to 8.0) | | |
| H3000's | 3.7 (-10 to 18) | | | 1.3 (-3.3 to 5.8) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_StanceDur | for Cluster: | 12 | | | | |
|-------------------------|-------------------|--------------|---------|---------------------|---------|---------|--|
| | Beta | Div Theta | , | Theta Div Beta | | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 3.9 (-14 to 22) | 0.67 | 0.67 | -0.78 (-7.2 to 5.7) | 0.81 | 0.94 | |
| mean_StanceDur | -2.7 (-14 to 9.1) | 0.66 | 0.67 | -0.19 (-4.6 to 4.3) | 0.94 | 0.94 | |
| group_char | | 0.55 | 0.67 | | 0.44 | 0.94 | |
| H1000's | _ | | | _ | | | |
| H2000's | -5.6 (-21 to 9.6) | | | 3.2 (-1.7 to 8.1) | | | |
| H3000's | 2.7 (-12 to 17) | | | 1.2 (-3.5 to 6.0) | | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | | |

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

¹ CI = Confidence Interval
² False discovery rate correction for multiple testing

| Changes in | mean_GaitCycleDur | for Cluster: | 12 | | | |
|-------------------------|-------------------|--------------|---------|--------------------|----------|---------|
| | Beta D | iv Theta | | Theta | Div Beta | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value |
| (Intercept) | 5.6 (-15 to 26) | 0.60 | 0.60 | -1.1 (-8.6 to 6.5) | 0.78 | 0.99 |
| mean_GaitCycleDur | -2.7 (-13 to 7.1) | 0.58 | 0.60 | 0.02 (-3.7 to 3.7) | 0.99 | 0.99 |
| group_char | | 0.55 | 0.60 | | 0.43 | 0.99 |
| H1000's | _ | | | _ | | |
| H2000's | -5.9 (-21 to 9.4) | | | 3.3 (-1.7 to 8.2) | | |
| H3000's | 2.2 (-13 to 17) | | | 1.3 (-3.5 to 6.2) | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | |

| Changes in | mean_PeakUpDownVel_mean | for Cluster: | 12 | | | | |
|-------------------------|-------------------------|--------------|---------|--------------------|----------------|---------|--|
| | Beta Div T | heta | | Theta | Theta Div Beta | | |
| Characteristic | Beta (95% CI) | p-value | q-value | Beta (95% CI) | p-value | q-value | |
| (Intercept) | 1.3 (-13 to 16) | 0.86 | 0.89 | -1.8 (-6.8 to 3.2) | 0.49 | 0.70 | |
| mean_PeakUpDownVel_mean | -2.9 (-46 to 40) | 0.89 | 0.89 | 3.2 (-13 to 19) | 0.70 | 0.70 | |
| group_char | | 0.52 | 0.89 | | 0.44 | 0.70 | |
| H1000's | _ | | | _ | | | |
| H2000's | -5.0 (-20 to 10) | | | 3.2 (-1.7 to 8.0) | | | |
| H3000's | 3.7 (-10 to 18) | | | 1.2 (-3.3 to 5.8) | | | |
| subj_char.sd(Intercept) | 13 (NA to NA) | | | 0.00 (NA to NA) | | | |
| Residual.sdObservation | 39 (NA to NA) | | | 15 (NA to NA) | | | |

¹ CI = Confidence Interval ² False discovery rate correction for multiple testing

 $^{^{-1}}$ CI = Confidence Interval $^{-2}$ False discovery rate correction for multiple testing