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
                                   1.3.1
                       v tidyr
## -- 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)
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()
# qtsummary::set_qtsummary_theme(my_theme)
gtsummary::set_gtsummary_theme(theme_gtsummary_journal("jama"))
## Setting theme 'JAMA'
## Setting theme 'JAMA'
# reset qtsummary theme()
```

load table

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', 'eeg_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)
```

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>
                                                 4 2
                                                                     0.25
## 1
        1.2 5
                               1 H1011
                                                            1
## 2
        0.69 8
                               2 H1017
                                                 3 2
                                                                     0.25
                                                            1
                                                 4 2
## 3
        0.51 10
                               3 H1019
                                                                     0.25
## 4
        0.76 11
                               4 H1020
                                                 6 2
                                                                     0.25
                                                            1
## 5
        0.59 12
                               5 H1022
                                                 6 2
                                                                     0.25
## 6
        0.8 15
                               6 H1027
                                                 3 2
                                                                     0.25
                                                             1
## # 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)
eegt <- eegt%>%
 mutate(theta_div_beta=theta_avg_power/beta_avg_power)
```

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

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)	-1.7 (-23 to 20)	0.88	0.88	-0.28 (-18 to 17)	0.97	0.97
mean_APexc_COV	0.21 (-1.2 to 1.6)	0.76	0.88	0.08 (-1.0 to 1.2)	0.89	0.97
group_char		0.41	0.88		0.61	0.97
H1000's	_			_		
H2000's	-21 (-53 to 11)			-12 (-37 to 14)		
H3000's	-14 (-44 to 16)			-0.58 (-25 to 23)		
mean_APexc_COV * group_char		0.79	0.88		0.74	0.97
mean_APexc_COV * H2000's	0.58 (-1.1 to 2.3)			0.42 (-0.92 to 1.8)		
mean_APexc_COV * H3000's	0.29 (-1.3 to 1.9)			0.04 (-1.2 to 1.3)		
subj_char.sd(Intercept)	4.7 (NA to NA)			3.0 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			19 (NA to NA)		

Changes in	mean_APexc_mean	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)	1.4 (-16 to 19)	0.87	0.99	3.3 (-11 to 18)	0.65	>0.99	
mean_APexc_mean	2.1 (-305 to 309)	0.99	0.99	-42 (-288 to 203)	0.73	>0.99	
group_char		0.61	0.99		>0.99	>0.99	
H1000's	_						
H2000's	2.9 (-23 to 29)			0.20 (-21 to 21)			
H3000's	11 (-12 to 35)			0.78 (-18 to 19)			
mean_APexc_mean * group_char		0.24	0.95		0.97	>0.99	
mean_APexc_mean * H2000's	-209 (-720 to 303)			-49 (-458 to 360)			
mean_APexc_mean * H3000's	-406 (-876 to 64)			-3.6 (-379 to 372)			
subj_char.sd(Intercept)	4.5 (NA to NA)			3.8 (NA to NA)			
Residual.sdObservation	23 (NA to NA)			18 (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:	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)	0.91 (-16 to 18)	0.91	0.94	-0.43 (-14 to 13)	0.95	0.95	
mean_MLexc_COV	0.05 (-1.1 to 1.2)	0.94	0.94	0.10 (-0.78 to 0.97)	0.83	0.95	
group_char		0.19	0.75		0.43	0.95	
H1000's	_			_			
H2000's	-22 (-45 to 1.6)			-11 (-29 to 7.8)			
H3000's	-13 (-37 to 11)			0.02 (-19 to 19)			
mean_MLexc_COV * group_char		0.39	0.77		0.54	0.95	
mean_MLexc_COV * H2000's	1.1 (-0.47 to 2.7)			0.65 (-0.58 to 1.9)			
mean_MLexc_COV * H3000's	0.62 (-0.99 to 2.2)			0.10 (-1.2 to 1.4)			
subj_char.sd(Intercept)	5.0 (NA to NA)			3.3 (NA to NA)			
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)			

Changes in	mean_MLexc_mean	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)	3.9 (-13 to 20)	0.65	0.99	4.3 (-8.9 to 17)	0.52	0.96		
mean_MLexc_mean	-28 (-217 to 161)	0.77	0.99	-41 (-191 to 109)	0.60	0.96		
group_char		0.99	0.99		0.96	0.96		
H1000's	_			_				
H2000's	0.34 (-22 to 22)			0.00 (-18 to 18)				
H3000's	1.5 (-20 to 23)			-2.0 (-19 to 15)				
mean_MLexc_mean * group_char		0.80	0.99		0.80	0.96		
mean_MLexc_mean * H2000's	-74 (-313 to 166)			-14 (-204 to 176)				
mean_MLexc_mean * H3000's	-73 (-314 to 167)			41 (-150 to 232)				
subj_char.sd(Intercept)	5.2 (NA to NA)			3.9 (NA to NA)				
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)				

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Changes in	mean_StepDur	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)	0.89 (-14 to 16)	0.91	0.93	2.2 (-9.8 to 14)	0.72	0.97
mean_StepDur	0.72 (-14 to 16)	0.93	0.93	-1.4 (-13 to 11)	0.82	0.97
group_char		0.28	0.57		0.97	0.97
H1000's	_			_		
H2000's	9.0 (-16 to 34)			2.2 (-18 to 23)		
H3000's	21 (-5.2 to 48)			1.5 (-20 to 23)		
mean_StepDur * group_char		0.067	0.27		0.91	0.97
mean_StepDur * H2000's	-20 (-50 to 9.7)			-5.4 (-29 to 19)		
mean_StepDur * H3000's	-39 (-74 to -3.4)			-0.72 (-29 to 28)		
subj_char.sd(Intercept)	3.1 (NA to NA)			3.7 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)		

Changes in	mean_UDexc_COV	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)	0.33 (-13 to 13)	0.96	0.96	2.8 (-7.3 to 13)	0.59	0.69
mean_UDexc_COV	0.10 (-0.86 to 1.1)	0.84	0.96	-0.15 (-0.91 to 0.60)	0.69	0.69
group_char		0.61	0.96		0.39	0.69
H1000's	_			_		
H2000's	-9.2 (-30 to 11)			8.7 (-7.1 to 25)		
H3000's	0.61 (-20 to 21)			-2.9 (-19 to 13)		
mean_UDexc_COV * group_char		0.76	0.96		0.19	0.69
mean_UDexc_COV * H2000's	0.18 (-1.3 to 1.6)			-0.75 (-1.9 to 0.38)		
mean_UDexc_COV * H3000's	-0.39 (-1.9 to 1.1)			0.33 (-0.82 to 1.5)		
subj_char.sd(Intercept)	4.8 (NA to NA)			2.6 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (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:	3			
	Beta D	iv Theta	,	Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	2.2 (-13 to 17)	0.78	0.93	-1.9 (-14 to 9.9)	0.75	0.75
mean_UDexc_mean	-25 (-613 to 562)	0.93	0.93	118 (-341 to 577)	0.61	0.75
group_char		0.72	0.93		0.052	0.16
H1000's	_			_		
H2000's	-7.2 (-29 to 15)			-15 (-32 to 2.3)		
H3000's	-8.2 (-30 to 13)			5.5 (-11 to 22)		
mean_UDexc_mean * group_char		0.92	0.93		0.080	0.16
mean_UDexc_mean * H2000's	24 (-799 to 847)			518 (-124 to 1,160)		
mean_UDexc_mean * H3000's	150 (-656 to 955)			-171 (-798 to 455)		
subj_char.sd(Intercept)	5.3 (NA to NA)			2.3 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)		

Changes in	mean_StanceDur	for Cluster:	3				
	Beta	Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	0.79 (-12 to 13)	0.90	0.90	1.9 (-8.2 to 12)	0.71	0.98	
mean_StanceDur	0.61 (-8.4 to 9.6)	0.90	0.90	-0.79 (-8.0 to 6.4)	0.83	0.98	
group_char		0.44	0.89		0.98	0.98	
H1000's	_			_			
H2000's	3.4 (-18 to 25)			0.37 (-16 to 17)			
H3000's	15 (-8.0 to 38)			1.7 (-17 to 20)			
mean_StanceDur * group_char		0.14	0.54		0.96	0.98	
mean_StanceDur * H2000's	-9.6 (-28 to 8.3)			-2.1 (-16 to 12)			
mean_StanceDur * H3000's	-21 (-43 to 0.87)			-0.71 (-18 to 17)			
subj_char.sd(Intercept)	3.8 (NA to NA)			3.6 (NA to NA)			
Residual.sdObservation	23 (NA to NA)			18 (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:	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)	0.88 (-14 to 16)	0.91	0.92	2.2 (-9.7 to 14)	0.72	0.98	
mean_GaitCycleDur	0.37 (-7.2 to 7.9)	0.92	0.92	-0.68 (-6.7 to 5.3)	0.82	0.98	
group_char		0.29	0.57		0.98	0.98	
H1000's	_			_			
H2000's	8.8 (-16 to 34)			2.1 (-18 to 22)			
H3000's	21 (-5.2 to 48)			1.5 (-20 to 23)			
mean_GaitCycleDur * group_char		0.068	0.27		0.91	0.98	
mean_GaitCycleDur * H2000's	-10 (-25 to 4.9)			-2.6 (-15 to 9.3)			
mean_GaitCycleDur * H3000's	-19 (-37 to -1.6)			-0.37 (-15 to 14)			
subj_char.sd(Intercept)	3.1 (NA to NA)			3.7 (NA to NA)			
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)			

Changes in	mean_PeakUpDownVel_mean	for Cluster:	3			
	Beta Div T	Theta div Beta				
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	2.8 (-9.6 to 15)	0.66	0.83	-1.1 (-11 to 8.5)	0.82	0.82
mean_PeakUpDownVel_mean	-5.1 (-51 to 41)	0.83	0.83	8.6 (-27 to 45)	0.64	0.82
group_char		0.38	0.83		0.12	0.35
H1000's	_			_		
H2000's	-10 (-29 to 7.8)			-11 (-25 to 3.3)		
H3000's	-12 (-30 to 6.5)			3.8 (-10 to 18)		
mean_PeakUpDownVel_mean * group_char		0.71	0.83		0.18	0.35
mean_PeakUpDownVel_mean * H2000's	15 (-49 to 80)			35 (-16 to 85)		
mean_PeakUpDownVel_mean * H3000's	26 (-36 to 88)			-10 (-59 to 39)		
subj_char.sd(Intercept)	5.3 (NA to NA)			3.2 (NA to NA)		
Residual.sd Observation	23 (NA to NA)			18 (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:	4			
	Beta D	iv Theta	Theta div Beta			
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	-11 (-63 to 42)	0.69	0.78	0.73 (-0.24 to 1.7)	0.14	0.57
mean_APexc_COV	1.3 (-1.8 to 4.3)	0.42	0.78	-0.03 (-0.09 to 0.03)	0.31	0.59
group_char		0.78	0.78		0.62	0.62
H1000's	_			_		
H2000's	36 (-63 to 135)			-0.58 (-2.4 to 1.3)		
H3000's	12 (-60 to 83)			-0.63 (-2.0 to 0.69)		
mean_APexc_COV * group_char		0.73	0.78		0.44	0.59
mean_APexc_COV * H2000's	-1.9 (-6.7 to 2.8)			0.03 (-0.06 to 0.12)		
mean_APexc_COV * H3000's	-0.89 (-4.5 to 2.7)			0.04 (-0.02 to 0.11)		
subj_char.sd(Intercept)	36 (NA to NA)			0.63 (NA to NA)		
Residual.sdObservation	51 (NA to NA)			0.95 (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)	15 (-26 to 56)	0.48	0.75	0.29 (-0.48 to 1.1)	0.46	0.92	
mean_APexc_mean	-104 (-791 to 584)	0.77	0.77	-0.69 (-14 to 12)	0.92	0.92	
group_char		0.56	0.75		0.90	0.92	
H1000's	_			_			
H2000's	17 (-46 to 80)			-0.17 (-1.3 to 1.0)			
H3000's	-17 (-73 to 40)			-0.25 (-1.3 to 0.81)			
mean_APexc_mean * group_char		0.48	0.75		0.58	0.92	
mean_APexc_mean * H2000's	-380 (-1,518 to 758)			-0.09 (-21 to 21)			
mean_APexc_mean * H3000's	384 (-705 to 1,472)			10 (-10 to 30)			
subj_char.sd(Intercept)	35 (NA to NA)			0.64 (NA to NA)			
Residual.sdObservation	51 (NA to NA)			0.95 (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:	4			
	Beta D	iv Theta	Theta div Beta			
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	10 (-30 to 51)	0.62	0.90	0.20 (-0.55 to 0.96)	0.60	0.97
mean_MLexc_COV	-0.07 (-2.6 to 2.5)	0.96	0.96	0.00 (-0.04 to 0.05)	0.89	0.97
group_char		0.68	0.90		0.78	0.97
H1000's	_			_		
H2000's	-27 (-90 to 37)			-0.12 (-1.3 to 1.1)		
H3000's	-19 (-76 to 38)			0.28 (-0.79 to 1.3)		
mean_MLexc_COV * group_char		0.59	0.90		0.97	0.97
mean_MLexc_COV * H2000's	1.9 (-2.1 to 6.0)			0.00 (-0.08 to 0.07)		
mean_MLexc_COV * H3000's	1.4 (-2.2 to 5.1)			-0.01 (-0.08 to 0.06)		
subj_char.sd(Intercept)	35 (NA to NA)			0.64 (NA to NA)		
Residual.sdObservation	51 (NA to NA)			0.95 (NA to NA)		

Changes in	mean_MLexc_mean	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)	12 (-28 to 51)	0.56	0.82	0.32 (-0.40 to 1.1)	0.38	0.82
mean_MLexc_mean	-30 (-466 to 406)	0.89	0.89	-0.88 (-9.0 to 7.3)	0.83	0.83
group_char		0.62	0.82		0.81	0.83
H1000's	_			_		
H2000's	23 (-34 to 80)			-0.18 (-1.2 to 0.87)		
H3000's	-3.0 (-55 to 49)			-0.32 (-1.3 to 0.64)		
mean_MLexc_mean * group_char		0.53	0.82		0.41	0.82
mean_MLexc_mean * H2000's	-236 (-808 to 336)			0.31 (-10 to 11)		
mean_MLexc_mean * H3000's	42 (-514 to 599)			5.8 (-4.5 to 16)		
subj_char.sd(Intercept)	35 (NA to NA)			0.61 (NA to NA)		
Residual.sdObservation	51 (NA to NA)			0.96 (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_StepDur	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)	10 (-24 to 45)	0.56	0.81	0.24 (-0.41 to 0.88)	0.47	0.96	
mean_StepDur	-0.97 (-34 to 32)	0.95	0.95	0.02 (-0.60 to 0.63)	0.96	0.96	
group_char		0.61	0.81		0.78	0.96	
H1000's	_			_			
H2000's	24 (-40 to 88)			-0.10 (-1.3 to 1.1)			
H3000's	-13 (-72 to 46)			0.34 (-0.76 to 1.4)			
mean_StepDur * group_char		0.55	0.81		0.94	0.96	
mean_StepDur * H2000's	-30 (-102 to 41)			-0.08 (-1.4 to 1.3)			
mean_StepDur * H3000's	19 (-53 to 91)			-0.25 (-1.6 to 1.1)			
subj_char.sd(Intercept)	35 (NA to NA)			0.63 (NA to NA)			
Residual.sdObservation	51 (NA to NA)			0.95 (NA to NA)			

Changes in	mean_UDexc_COV	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)	11 (-19 to 42)	0.46	0.87	0.34 (-0.23 to 0.91)	0.24	0.95
mean_UDexc_COV	-0.17 (-2.1 to 1.8)	0.87	0.87	-0.01 (-0.04 to 0.03)	0.71	0.95
group_char		0.67	0.87		0.84	0.95
H1000's	_			_		
H2000's	15 (-34 to 64)			-0.23 (-1.1 to 0.69)		
H3000's	-9.2 (-57 to 39)			0.05 (-0.83 to 0.94)		
mean_UDexc_COV * group_char		0.56	0.87		0.95	0.95
mean_UDexc_COV * H2000's	-1.1 (-4.2 to 2.0)			0.01 (-0.05 to 0.06)		
mean_UDexc_COV * H3000's	0.70 (-2.3 to 3.7)			0.01 (-0.05 to 0.07)		
subj_char.sd(Intercept)	35 (NA to NA)			0.64 (NA to NA)		
Residual.sdObservation	51 (NA to NA)			0.95 (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:	4			
	Beta D	iv Theta		Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	-0.47 (-37 to 36)	0.98	0.98	0.21 (-0.45 to 0.88)	0.53	0.89
mean_UDexc_mean	406 (-894 to 1,706)	0.54	0.86	1.7 (-23 to 26)	0.89	0.89
group_char		0.65	0.86		0.66	0.89
H1000's	_			_		
H2000's	-5.0 (-62 to 52)			-0.18 (-1.2 to 0.87)		
H3000's	19 (-31 to 68)			-0.42 (-1.3 to 0.49)		
mean_UDexc_mean * group_char		0.56	0.86		0.26	0.89
mean_UDexc_mean * H2000's	198 (-1,803 to 2,199)			0.65 (-37 to 38)		
mean_UDexc_mean * H3000's	-756 (-2,514 to 1,002)			25 (-8.4 to 57)		
subj_char.sd(Intercept)	36 (NA to NA)			0.59 (NA to NA)		
Residual.sdObservation	51 (NA to NA)			0.95 (NA to NA)		

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

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)	8.9 (-21 to 39)	0.56	0.95	0.25 (-0.31 to 0.81)	0.39	0.98	
mean_StanceDur	0.35 (-19 to 20)	0.97	0.97	0.00 (-0.36 to 0.37)	0.98	0.98	
group_char		0.71	0.95		0.63	0.98	
H1000's	_			_			
H2000's	19 (-35 to 73)			-0.12 (-1.1 to 0.89)			
H3000's	-5.6 (-56 to 44)			0.38 (-0.55 to 1.3)			
mean_StanceDur * group_char		0.63	0.95		0.85	0.98	
mean_StanceDur * H2000's	-18 (-60 to 24)			-0.05 (-0.83 to 0.74)			
mean_StanceDur * H3000's	6.7 (-36 to 50)			-0.23 (-1.0 to 0.58)			
subj_char.sd(Intercept)	35 (NA to NA)			0.63 (NA to NA)			
Residual.sdObservation	51 (NA to NA)			0.95 (NA to NA)			

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)	10 (-24 to 45)	0.56	0.81	0.24 (-0.41 to 0.88)	0.47	0.96
mean_GaitCycleDur	-0.49 (-17 to 16)	0.95	0.95	0.01 (-0.30 to 0.32)	0.96	0.96
group_char		0.61	0.81		0.78	0.96
H1000's	_			_		
H2000's	23 (-40 to 87)			-0.10 (-1.3 to 1.1)		
H3000's	-13 (-72 to 46)			0.34 (-0.76 to 1.4)		
mean_GaitCycleDur * group_char		0.55	0.81		0.94	0.96
mean_GaitCycleDur * H2000's	-15 (-51 to 20)			-0.04 (-0.71 to 0.63)		
mean_GaitCycleDur * H3000's	9.6 (-26 to 46)			-0.12 (-0.80 to 0.55)		
subj_char.sd(Intercept)	35 (NA to NA)			0.63 (NA to NA)		
Residual.sdObservation	51 (NA to NA)			0.95 (NA to NA)		

Changes in	mean_PeakUpDownVel_mean	for Cluster:	4			
	Beta Div T	Theta div Beta				
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	2.7 (-26 to 32)	0.85	0.85	0.24 (-0.29 to 0.78)	0.37	0.75
mean_PeakUpDownVel_mean	28 (-69 to 125)	0.58	0.77	0.03 (-1.8 to 1.9)	0.97	0.97
group_char		0.48	0.77		0.81	0.97
H1000's	_			_		
H2000's	-13 (-61 to 35)			-0.17 (-1.1 to 0.71)		
H3000's	16 (-26 to 58)			-0.25 (-1.0 to 0.52)		
mean_PeakUpDownVel_mean * group_char		0.31	0.77		0.36	0.75
mean_PeakUpDownVel_mean * H2000's	49 (-102 to 201)			0.02 (-2.8 to 2.9)		
mean_PeakUpDownVel_mean * H3000's	-63 (-195 to 70)			1.6 (-0.89 to 4.1)		
subj_char.sd(Intercept)	35 (NA to NA)			0.61 (NA to NA)		
Residual.sdObservation	51 (NA to NA)			0.95 (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 D	iv Theta	Theta div Beta			
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	20 (-308 to 348)	0.91	0.95	-2.6 (-14 to 8.8)	0.66	0.94
mean_APexc_COV	-0.60 (-21 to 20)	0.95	0.95	0.10 (-0.61 to 0.81)	0.78	0.94
group_char		0.71	0.95		0.68	0.94
H1000's	_			_		
H2000's	-13 (-548 to 522)			8.3 (-10 to 27)		
H3000's	166 (-285 to 616)			2.8 (-13 to 19)		
mean_APexc_COV * group_char		0.89	0.95		0.94	0.94
mean_APexc_COV * H2000's	-0.05 (-28 to 28)			-0.18 (-1.1 to 0.79)		
mean_APexc_COV * H3000's	-4.5 (-28 to 19)			-0.10 (-0.93 to 0.73)		
subj_char.sd(Intercept)	28 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	385 (NA to NA)			14 (NA to NA)		

Changes in	mean_APexc_mean	for Cluster:	5			
	Beta Di	Theta div Beta				
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	24 (-268 to 315)	0.87	0.93	-9.5 (-20 to 0.63)	0.066	0.12
mean_APexc_mean	-239 (-5,314 to 4,835)	0.93	0.93	154 (-23 to 331)	0.088	0.12
group_char		0.93	0.93		0.072	0.12
H1000's	_			_		
H2000's	-23 (-450 to 403)			17 (2.4 to 32)		
H3000's	-69 (-437 to 299)			9.7 (-3.1 to 22)		
mean_APexc_mean * group_char		0.70	0.93		0.23	0.23
mean_APexc_mean * H2000's	72 (-7,972 to 8,117)			-233 (-513 to 46)		
mean_APexc_mean * H3000's	2,786 (-4,375 to 9,947)			-152 (-401 to 97)		
subj_char.sd(Intercept)	42 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	384 (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:	5			
	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 (-228 to 235)	0.98	0.98	2.2 (-6.0 to 10)	0.60	0.82
mean_MLexc_COV	0.47 (-14 to 15)	0.95	0.98	-0.21 (-0.72 to 0.29)	0.40	0.82
group_char		0.10	0.33		0.61	0.82
H1000's	_			_		
H2000's	-15 (-354 to 324)			4.1 (-7.9 to 16)		
H3000's	327 (-18 to 671)			-2.1 (-14 to 10)		
mean_MLexc_COV * group_char		0.17	0.33		0.85	0.85
mean_MLexc_COV * H2000's	-0.16 (-22 to 21)			0.05 (-0.71 to 0.81)		
mean_MLexc_COV * H3000's	-19 (-41 to 2.7)			0.22 (-0.55 to 1.0)		
subj_char.sd(Intercept)	0.00 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	383 (NA to NA)			13 (NA to NA)		

Changes in	mean_MLexc_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)	32 (-209 to 273)	0.80	0.85	-6.5 (-15 to 2.0)	0.13	0.24
mean_MLexc_mean	-274 (-3,167 to 2,619)	0.85	0.85	69 (-32 to 171)	0.18	0.24
group_char		0.38	0.75		0.13	0.24
H1000's	_			_		
H2000's	-35 (-386 to 315)			13 (0.40 to 25)		
H3000's	-204 (-518 to 109)			6.6 (-4.4 to 18)		
mean_MLexc_mean * group_char		0.14	0.55		0.38	0.38
mean_MLexc_mean * H2000's	231 (-3,585 to 4,046)			-93 (-228 to 41)		
mean_MLexc_mean * H3000's	3,059 (-564 to 6,682)			-68 (-196 to 59)		
subj_char.sd(Intercept)	52 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	378 (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_StepDur	for Cluster:	5			
	Beta 1	Div Theta	Theta div Beta			
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	20 (-217 to 257)	0.87	0.93	-4.7 (-13 to 3.8)	0.28	0.55
mean_StepDur	-10 (-251 to 231)	0.93	0.93	3.9 (-4.7 to 13)	0.37	0.55
group_char		0.085	0.17		0.41	0.55
H1000's	_			_		
H2000's	-26 (-460 to 409)			10 (-5.2 to 26)		
H3000's	-429 (-822 to -35)			5.0 (-9.0 to 19)		
mean_StepDur * group_char		0.023	0.092		0.77	0.77
mean_StepDur * H2000's	8.3 (-510 to 526)			-6.1 (-25 to 12)		
mean_StepDur * H3000's	677 (182 to 1,172)			-4.1 (-22 to 14)		
subj_char.sd(Intercept)	16 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	379 (NA to NA)			13 (NA to NA)		

Changes in	mean_UDexc_COV	for Cluster:	5				
	Beta D	Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	12 (-198 to 222)	0.91	0.99	-2.2 (-9.6 to 5.2)	0.56	0.95	
mean_UDexc_COV	-0.13 (-16 to 16)	0.99	0.99	0.10 (-0.47 to 0.66)	0.74	0.95	
group_char		0.33	0.66		0.70	0.95	
H1000's	_			_			
H2000's	-26 (-337 to 286)			4.7 (-6.3 to 16)			
H3000's	-214 (-519 to 90)			2.5 (-8.3 to 13)			
mean_UDexc_COV * group_char		0.14	0.54		0.95	0.95	
mean_UDexc_COV * H2000's	0.59 (-22 to 23)			0.01 (-0.78 to 0.80)			
mean_UDexc_COV * H3000's	19 (-2.6 to 41)			-0.10 (-0.88 to 0.67)			
subj_char.sd(Intercept)	26 (NA to NA)			0.00 (NA to NA)			
Residual.sdObservation	380 (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_UDexc_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)	6.7 (-248 to 261)	0.96	0.98	0.80 (-8.2 to 9.8)	0.86	0.92
mean_UDexc_mean	158 (-9,900 to 10,217)	0.98	0.98	-77 (-433 to 278)	0.67	0.92
group_char		0.15	0.49		0.84	0.92
H1000's	_			_		
H2000's	-9.8 (-379 to 359)			2.9 (-10 to 16)		
H3000's	280 (-56 to 617)			-0.75 (-13 to 11)		
mean_UDexc_mean * group_char		0.25	0.49		0.92	0.92
mean_UDexc_mean * H2000's	-328 (-14,471 to 13,815)			88 (-412 to 587)		
mean_UDexc_mean * H3000's	-9,646 (-22,851 to 3,559)			84 (-383 to 550)		
subj_char.sd(Intercept)	28 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	382 (NA to NA)			14 (NA to NA)		

Changes in	mean_StanceDur	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)	18 (-181 to 217)	0.86	0.94	-3.9 (-11 to 3.1)	0.27	0.51
mean_StanceDur	-5.8 (-150 to 138)	0.94	0.94	2.3 (-2.8 to 7.4)	0.38	0.51
group_char		0.14	0.28		0.36	0.51
H1000's	_					
H2000's	-24 (-382 to 334)			9.2 (-3.5 to 22)		
H3000's	-323 (-655 to 8.9)			4.2 (-7.5 to 16)		
mean_StanceDur * group_char		0.036	0.14		0.78	0.78
mean_StanceDur * H2000's	4.7 (-305 to 314)			-3.6 (-15 to 7.4)		
mean_StanceDur * H3000's	388 (87 to 689)			-2.4 (-13 to 8.3)		
subj_char.sd(Intercept)	22 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	379 (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

mean_GaitCycleDur	for Cluster:	5			
Beta Div Theta			Theta div Beta		
Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
20 (-217 to 256)	0.87	0.93	-4.7 (-13 to 3.8)	0.28	0.55
-5.0 (-125 to 115)	0.93	0.93	2.0 (-2.3 to 6.2)	0.37	0.55
	0.084	0.17		0.41	0.55
_			_		
-26 (-459 to 407)			10 (-5.2 to 26)		
-429 (-823 to -36)			5.0 (-9.0 to 19)		
	0.023	0.091		0.77	0.77
4.1 (-254 to 262)			-3.0 (-12 to 6.2)		
339 (92 to 586)			-2.0 (-11 to 6.8)		
15 (NA to NA)			0.00 (NA to NA)		
379 (NA to NA)			13 (NA to NA)		
	Beta D Beta (95% CI) 20 (-217 to 256) -5.0 (-125 to 115) -26 (-459 to 407) -429 (-823 to -36) 4.1 (-254 to 262) 339 (92 to 586) 15 (NA to NA)	Beta Div Theta Beta (95% CI) p-value 20 (-217 to 256) 0.87 -5.0 (-125 to 115) 0.93 0.084 -26 (-459 to 407) -429 (-823 to -36) 4.1 (-254 to 262) 339 (92 to 586) 15 (NA to NA)	Beta Div Theta Beta (95% CI) p-value q-value 20 (-217 to 256) 0.87 0.93 -5.0 (-125 to 115) 0.93 0.93 0.084 0.17 -26 (-459 to 407) -429 (-823 to -36) 0.023 0.091 4.1 (-254 to 262) 339 (92 to 586) 15 (NA to NA)	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Changes in	mean_PeakUpDownVel_mean	for Cluster:	5			
	Beta Div T	heta		Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	1.1 (-197 to 199)	>0.99	>0.99	0.27 (-6.7 to 7.2)	0.94	0.95
mean_PeakUpDownVel_mean	40 (-722 to 801)	0.92	>0.99	-5.6 (-32 to 21)	0.68	0.95
group_char		0.14	0.50		0.67	0.95
H1000's	_			_		
H2000's	-5.4 (-307 to 296)			4.2 (-6.5 to 15)		
H3000's	245 (-31 to 522)			-0.22 (-10 to 9.5)		
mean_PeakUpDownVel_mean * group_char		0.25	0.50		0.95	0.95
mean_PeakUpDownVel_mean * H2000's	-51 (-1,153 to 1,050)			3.7 (-35 to 43)		
mean_PeakUpDownVel_mean * H3000's	-773 (-1,799 to 254)			6.2 (-30 to 42)		
subj_char.sd(Intercept)	13 (NA to NA)			0.00 (NA to NA)		
Residual.sd Observation	383 (NA to NA)			14 (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:	6			
	Beta D	iv Theta	,	Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	-63 (-231 to 104)	0.46	0.92	0.16 (-24 to 24)	0.99	>0.99
mean_APexc_COV	2.3 (-7.8 to 12)	0.66	0.92	0.00 (-1.5 to 1.5)	>0.99	>0.99
group_char		0.77	0.92		0.91	>0.99
H1000's	_			_		
H2000's	84 (-180 to 348)			0.55 (-38 to 39)		
H3000's	68 (-150 to 287)			6.2 (-25 to 38)		
mean_APexc_COV * group_char		0.92	0.92		>0.99	>0.99
mean_APexc_COV * H2000's	-2.1 (-15 to 11)			-0.01 (-1.9 to 1.9)		
mean_APexc_COV * H3000's	-2.4 (-14 to 9.0)			-0.06 (-1.7 to 1.6)		
subj_char.sd(Intercept)	34 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	209 (NA to NA)			31 (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)	130 (-17 to 278)	0.083	0.17	0.10 (-22 to 22)	>0.99	>0.99
mean_APexc_mean	-2,860 (-5,443 to -277)	0.030	0.12	1.6 (-378 to 381)	>0.99	>0.99
group_char		0.39	0.39		0.46	>0.99
H1000's	_			_		
H2000's	-96 (-301 to 108)			-0.27 (-30 to 30)		
H3000's	-128 (-312 to 56)			14 (-13 to 41)		
mean_APexc_mean * group_char		0.24	0.32		0.63	>0.99
mean_APexc_mean * H2000's	2,662 (-1,337 to 6,661)			17 (-569 to 603)		
mean_APexc_mean * H3000's	2,855 (-758 to 6,468)			-223 (-752 to 306)		
subj_char.sd(Intercept)	24 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	209 (NA to NA)			31 (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)	-147 (-278 to -15)	0.028	0.11	0.20 (-19 to 19)	0.98	>0.99
mean_MLexc_COV	8.5 (-0.30 to 17)	0.058	0.12	0.00 (-1.3 to 1.3)	>0.99	>0.99
group_char		0.27	0.34		0.99	>0.99
H1000's	_			_		
H2000's	73 (-113 to 259)			0.62 (-26 to 28)		
H3000's	151 (-32 to 334)			2.1 (-25 to 29)		
mean_MLexc_COV * group_char		0.34	0.34		0.97	>0.99
mean_MLexc_COV * H2000's	-1.8 (-14 to 10)			-0.01 (-1.8 to 1.8)		
mean_MLexc_COV * H3000's	-8.6 (-21 to 3.6)			0.19 (-1.6 to 2.0)		
subj_char.sd(Intercept)	32 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	207 (NA to NA)			31 (NA to NA)		

Changes in	mean_MLexc_mean	for Cluster:	6			
	Beta Di	Theta div Beta				
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	153 (28 to 279)	0.016	0.033	0.20 (-18 to 19)	0.98	>0.99
mean_MLexc_mean	-2,215 (-3,674 to -756)	0.003	0.012	-0.12 (-216 to 216)	>0.99	>0.99
group_char		0.18	0.18		0.72	>0.99
H1000's	_			_		
H2000's	-78 (-245 to 89)			0.13 (-25 to 25)		
H3000's	-150 (-310 to 8.7)			7.9 (-16 to 31)		
mean_MLexc_mean * group_char		0.056	0.075		0.93	>0.99
mean_MLexc_mean * H2000's	1,658 (-176 to 3,491)			3.4 (-268 to 275)		
mean_MLexc_mean * H3000's	2,204 (387 to 4,022)			-38 (-307 to 231)		
subj_char.sd(Intercept)	22 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	207 (NA to NA)			31 (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:	6			
	Beta I	Div Theta	Theta div Beta			
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	-0.72 (-121 to 120)	>0.99	>0.99	0.18 (-17 to 18)	0.98	>0.99
mean_StepDur	-28 (-152 to 95)	0.65	0.87	0.01 (-18 to 18)	>0.99	>0.99
group_char		0.45	0.87		0.66	>0.99
H1000's	_			_		
H2000's	124 (-81 to 330)			0.34 (-30 to 31)		
H3000's	3.2 (-190 to 196)			12 (-16 to 41)		
mean_StepDur * group_char		0.65	0.87		0.82	>0.99
mean_StepDur * H2000's	-104 (-352 to 144)			0.14 (-36 to 37)		
mean_StepDur * H3000's	27 (-218 to 273)			-11 (-47 to 25)		
subj_char.sd(Intercept)	33 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	209 (NA to NA)			31 (NA to NA)		

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

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)	-21 (-122 to 80)	0.68	0.91	0.20 (-15 to 15)	0.98	>0.99			
mean_UDexc_COV	-0.42 (-7.8 to 7.0)	0.91	0.91	0.00 (-1.1 to 1.1)	>0.99	>0.99			
group_char		0.29	0.91		0.55	>0.99			
H1000's	_			_					
H2000's	121 (-34 to 276)			0.20 (-22 to 23)					
H3000's	25 (-128 to 177)			11 (-11 to 33)					
mean_UDexc_COV * group_char		0.56	0.91		0.79	>0.99			
mean_UDexc_COV * H2000's	-5.1 (-16 to 5.7)			0.02 (-1.6 to 1.6)					
mean_UDexc_COV * H3000's	0.33 (-10 to 11)			-0.47 (-2.0 to 1.1)					
subj_char.sd(Intercept)	32 (NA to NA)			0.00 (NA to NA)					
Residual.sdObservation	209 (NA to NA)			31 (NA to NA)					

² False discovery rate correction for multiple testing

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

mean_UDexc_mean	for Cluster:	6			
Beta Di	Theta div Beta				
Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
3.1 (-112 to 119)	0.96	0.96	0.15 (-17 to 17)	0.99	>0.99
-1,252 (-5,798 to 3,294)	0.59	0.86	1.7 (-667 to 671)	>0.99	>0.99
	0.65	0.86		0.85	>0.99
_			_		
-68 (-235 to 99)			0.01 (-24 to 24)		
0.01 (-158 to 158)			5.8 (-17 to 29)		
	0.28	0.86		>0.99	>0.99
4,975 (-1,470 to 11,420)			18 (-930 to 966)		
1,204 (-4,941 to 7,349)			-44 (-946 to 858)		
36 (NA to NA)			0.00 (NA to NA)		
208 (NA to NA)			31 (NA to NA)		
	Beta Div Beta (95% CI) 3.1 (-112 to 119) -1,252 (-5,798 to 3,294) -68 (-235 to 99) 0.01 (-158 to 158) 4,975 (-1,470 to 11,420) 1,204 (-4,941 to 7,349) 36 (NA to NA)	Beta Div Theta Beta (95% CI) p-value 3.1 (-112 to 119) 0.96 -1,252 (-5,798 to 3,294) 0.59 0.65 -68 (-235 to 99) 0.01 (-158 to 158) 0.28 4,975 (-1,470 to 11,420) 1,204 (-4,941 to 7,349) 36 (NA to NA)	Beta Div Theta Beta (95% CI) p-value q-value 3.1 (-112 to 119) 0.96 0.96 -1,252 (-5,798 to 3,294) 0.59 0.86	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

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)	-9.1 (-110 to 92)	0.86	0.86	0.18 (-15 to 15)	0.98	>0.99
mean_StanceDur	-14 (-88 to 60)	0.71	0.86	0.00 (-11 to 11)	>0.99	>0.99
group_char		0.36	0.86		0.65	>0.99
H1000's	_			_		
H2000's	118 (-51 to 288)			0.69 (-24 to 26)		
H3000's	12 (-151 to 174)			11 (-13 to 35)		
mean_StanceDur * group_char		0.60	0.86		0.84	>0.99
mean_StanceDur * H2000's	-69 (-215 to 77)			-0.25 (-22 to 21)		
mean_StanceDur * H3000's	13 (-136 to 163)			-6.5 (-28 to 16)		
subj_char.sd(Intercept)	33 (NA to NA)			0.00 (NA to NA)		
Residual.sdObservation	209 (NA to NA)			31 (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:	6			
Beta D	Theta div Beta				
Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
-0.67 (-121 to 120)	>0.99	>0.99	0.18 (-17 to 18)	0.98	>0.99
-14 (-76 to 47)	0.65	0.87	0.00 (-9.1 to 9.1)	>0.99	>0.99
	0.45	0.87		0.66	>0.99
_			_		
124 (-82 to 329)			0.33 (-30 to 30)		
3.1 (-190 to 196)			12 (-16 to 40)		
	0.65	0.87		0.83	>0.99
-51 (-175 to 72)			0.07 (-18 to 18)		
14 (-109 to 136)			-5.5 (-23 to 12)		
33 (NA to NA)			0.00 (NA to NA)		
209 (NA to NA)			31 (NA to NA)		
	Beta (95% CI) -0.67 (-121 to 120) -14 (-76 to 47)	-0.67 (-121 to 120) >0.99 -14 (-76 to 47) 0.65 0.45 	Beta (95% CI) p-value q-value -0.67 (-121 to 120) >0.99 >0.99 -14 (-76 to 47) 0.65 0.87 0.45 0.87	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Changes in	mean_PeakUpDownVel_mean	for Cluster:	6				
	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)	-51 (-147 to 44)	0.29	0.67	0.16 (-14 to 14)	0.98	>0.99	
mean_PeakUpDownVel_mean	106 (-257 to 470)	0.57	0.67	0.09 (-54 to 54)	>0.99	>0.99	
group_char		0.67	0.67		0.90	>0.99	
H1000's	_			_			
H2000's	4.2 (-137 to 145)			0.67 (-20 to 21)			
H3000's	54 (-78 to 186)			4.2 (-15 to 23)			
mean_PeakUpDownVel_mean * group_char		0.51	0.67		>0.99	>0.99	
mean_PeakUpDownVel_mean * H2000's	171 (-337 to 678)			-0.91 (-76 to 74)			
mean_PeakUpDownVel_mean * H3000's	-110 (-591 to 372)			2.3 (-69 to 73)			
subj_char.sd(Intercept)	36 (NA to NA)			0.00 (NA to NA)			
Residual.sdObservation	208 (NA to NA)			31 (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)	-17 (-73 to 38)	0.54	0.77	2.4 (1.4 to 3.4)	< 0.001	< 0.001
mean_APexc_COV	0.22 (-3.1 to 3.6)	0.90	0.90	-0.11 (-0.16 to -0.06)	< 0.001	< 0.001
group_char		0.58	0.77		0.002	0.002
H1000's	_			_		
H2000's	50 (-45 to 146)			-2.5 (-4.2 to -0.66)		
H3000's	13 (-60 to 85)			-2.3 (-3.7 to -0.83)		
mean_APexc_COV * group_char		0.46	0.77		0.002	0.002
mean_APexc_COV * H2000's	-2.6 (-7.5 to 2.2)			0.11 (0.03 to 0.19)		
mean_APexc_COV * H3000's	-0.25 (-4.1 to 3.6)			0.11 (0.05 to 0.17)		
subj_char.sd(Intercept)	13 (NA to NA)			1.3 (NA to NA)		
Residual.sdObservation	67 (NA to NA)			0.89 (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)	-15 (-63 to 33)	0.54	0.95	1.7 (0.85 to 2.6)	< 0.001	< 0.001
mean_APexc_mean	26 (-818 to 871)	0.95	0.95	-20 (-32 to -7.0)	0.002	0.005
group_char		0.91	0.95		0.015	0.021
H1000's	_			_		
H2000's	-2.6 (-75 to 70)			-1.7 (-3.1 to -0.31)		
H3000's	-13 (-74 to 49)			-1.5 (-2.7 to -0.35)		
mean_APexc_mean * group_char		0.62	0.95		0.11	0.11
mean_APexc_mean * H2000's	-44 (-1,420 to 1,333)			19 (-2.9 to 40)		
mean_APexc_mean * H3000's	531 (-681 to 1,744)			18 (-1.3 to 38)		
subj_char.sd(Intercept)	11 (NA to NA)			1.3 (NA to NA)		
Residual.sdObservation	68 (NA to NA)			0.92 (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:	7			
	Beta D	iv Theta	Theta d	iv Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	-12 (-56 to 33)	0.61	0.94	0.23 (-0.70 to 1.2)	0.62	0.91
mean_MLexc_COV	-0.16 (-3.3 to 3.0)	0.92	0.94	0.03 (-0.03 to 0.09)	0.30	0.91
group_char		0.94	0.94		0.91	0.91
H1000's	_			_		
H2000's	1.5 (-65 to 68)			-0.31 (-1.7 to 1.1)		
H3000's	-9.3 (-73 to 54)			-0.20 (-1.5 to 1.1)		
mean_MLexc_COV * group_char		0.73	0.94		0.77	0.91
mean_MLexc_COV * H2000's	-0.43 (-4.9 to 4.0)			-0.03 (-0.11 to 0.05)		
mean_MLexc_COV * H3000's	1.3 (-3.1 to 5.6)			-0.02 (-0.10 to 0.05)		
subj_char.sd(Intercept)	12 (NA to NA)			1.2 (NA to NA)		
Residual.sdObservation	68 (NA to NA)			0.95 (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)	-30 (-73 to 13)	0.17	0.66	1.7 (0.86 to 2.5)	< 0.001	< 0.001
mean_MLexc_mean	192 (-291 to 675)	0.44	0.66	-12 (-20 to -4.8)	0.001	0.003
group_char		0.76	0.76		0.011	0.014
H1000's	_			_		
H2000's	23 (-38 to 84)			-1.6 (-2.9 to -0.41)		
H3000's	9.1 (-46 to 64)			-1.5 (-2.6 to -0.36)		
mean_MLexc_mean * group_char		0.50	0.66		0.039	0.039
mean_MLexc_mean * H2000's	-322 (-975 to 330)			12 (1.5 to 22)		
mean_MLexc_mean * H3000's	-2.3 (-621 to 617)			11 (1.4 to 21)		
subj_char.sd(Intercept)	12 (NA to NA)			1.3 (NA to NA)		
Residual.sdObservation	68 (NA to NA)			0.92 (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_StepDur	for Cluster:	7			
	Beta	Beta Div Theta			liv Beta	
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	-21 (-61 to 19)	0.31	0.97	1.2 (0.42 to 1.9)	0.002	0.009
mean_StepDur	8.2 (-34 to 50)	0.70	0.97	-0.57 (-1.2 to 0.02)	0.058	0.12
group_char		0.97	0.97		0.15	0.21
H1000's	_			_		
H2000's	-8.0 (-83 to 67)			-1.1 (-2.4 to 0.20)		
H3000's	-6.9 (-73 to 59)			-0.92 (-2.1 to 0.28)		
mean_StepDur * group_char		0.85	0.97		0.67	0.67
mean_StepDur * H2000's	5.3 (-82 to 93)			0.50 (-0.75 to 1.8)		
mean_StepDur * H3000's	24 (-59 to 108)			0.40 (-0.88 to 1.7)		
subj_char.sd(Intercept)	12 (NA to NA)			1.2 (NA to NA)		
Residual.sdObservation	68 (NA to NA)			0.94 (NA to NA)		

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

Changes in	mean_UDexc_COV	for Cluster:	7			
	Beta D	iv Theta	Theta d	iv Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	-19 (-54 to 15)	0.28	0.98	1.2 (0.47 to 1.9)	0.001	0.004
mean_UDexc_COV	0.44 (-2.1 to 3.0)	0.73	0.98	-0.04 (-0.08 to 0.00)	0.029	0.057
group_char		0.98	0.98		0.071	0.094
H1000's	_			_		
H2000's	2.6 (-51 to 57)			-1.2 (-2.3 to -0.04)		
H3000's	5.3 (-48 to 58)			-0.99 (-2.1 to 0.07)		
mean_UDexc_COV * group_char		0.92	0.98		0.28	0.28
mean_UDexc_COV * H2000's	-0.60 (-4.4 to 3.2)			0.04 (-0.02 to 0.10)		
mean_UDexc_COV * H3000's	0.17 (-3.5 to 3.9)			0.04 (-0.02 to 0.09)		
subj_char.sd(Intercept)	12 (NA to NA)			1.2 (NA to NA)		
Residual.sdObservation	68 (NA to NA)			0.94 (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)	-21 (-60 to 19)	0.30	0.81	0.10 (-0.65 to 0.86)	0.79	0.97
mean_UDexc_mean	292 (-1,248 to 1,832)	0.71	0.81	23 (0.03 to 46)	0.050	0.20
group_char		0.58	0.81		0.97	0.97
H1000's	_			_		
H2000's	-10 (-72 to 51)			-0.15 (-1.4 to 1.1)		
H3000's	21 (-34 to 76)			-0.03 (-1.1 to 1.0)		
mean_UDexc_mean * group_char		0.81	0.81		0.36	0.72
mean_UDexc_mean * H2000's	236 (-2,180 to 2,652)			-22 (-58 to 15)		
mean_UDexc_mean * H3000's	-520 (-2,684 to 1,645)			-21 (-53 to 12)		
subj_char.sd(Intercept)	13 (NA to NA)			1.2 (NA to NA)		
Residual.sdObservation	68 (NA to NA)			0.94 (NA to NA)		

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

Changes in	mean_StanceDur	for Cluster:	7			
	Beta	Beta Div Theta			iv Beta	
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	-19 (-53 to 15)	0.27	0.96	1.1 (0.39 to 1.7)	0.002	0.008
mean_StanceDur	4.4 (-20 to 29)	0.73	0.96	-0.33 (-0.68 to 0.02)	0.063	0.13
group_char		0.96	0.96		0.14	0.19
H1000's	_			_		
H2000's	3.9 (-58 to 65)			-1.0 (-2.2 to 0.14)		
H3000's	-5.7 (-61 to 50)			-0.83 (-1.9 to 0.23)		
mean_StanceDur * group_char		0.74	0.96		0.68	0.68
mean_StanceDur * H2000's	-7.6 (-60 to 44)			0.29 (-0.45 to 1.0)		
mean_StanceDur * H3000's	16 (-34 to 67)			0.22 (-0.53 to 0.97)		
subj_char.sd(Intercept)	12 (NA to NA)			1.2 (NA to NA)		
Residual.sdObservation	68 (NA to NA)			0.94 (NA to NA)		

² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

mean_GaitCycleDur	for Cluster:	7			
Beta D	iv Theta	Theta div Beta			
Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
-21 (-61 to 19)	0.30	0.97	1.2 (0.42 to 1.9)	0.002	0.009
4.1 (-17 to 25)	0.70	0.97	-0.29 (-0.58 to 0.01)	0.058	0.12
	0.97	0.97		0.15	0.21
_			_		
-7.9 (-82 to 66)			-1.1 (-2.4 to 0.20)		
-6.8 (-73 to 59)			-0.92 (-2.1 to 0.29)		
	0.85	0.97		0.67	0.67
2.6 (-41 to 46)			0.25 (-0.37 to 0.87)		
12 (-29 to 54)			0.20 (-0.44 to 0.83)		
12 (NA to NA)			1.2 (NA to NA)		
68 (NA to NA)			0.94 (NA to NA)		
	Beta D Beta (95% CI) -21 (-61 to 19) 4.1 (-17 to 25) -7.9 (-82 to 66) -6.8 (-73 to 59) 2.6 (-41 to 46) 12 (-29 to 54) 12 (NA to NA)	Beta Div Theta Beta (95% CI) p-value -21 (-61 to 19) 0.30 4.1 (-17 to 25) 0.70	Beta Div Theta Beta (95% CI) p-value q-value -21 (-61 to 19) 0.30 0.97 4.1 (-17 to 25) 0.70 0.97	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

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)	-18 (-50 to 14)	0.26	0.76	0.10 (-0.55 to 0.76)	0.76	0.96
mean_PeakUpDownVel_mean	19 (-102 to 140)	0.76	0.76	2.3 (0.62 to 4.1)	0.008	0.030
group_char		0.50	0.76		0.96	0.96
H1000's	_			_		
H2000's	-7.8 (-60 to 45)			-0.15 (-1.2 to 0.93)		
H3000's	21 (-24 to 66)			-0.04 (-0.99 to 0.91)		
mean_PeakUpDownVel_mean * group_char		0.76	0.76		0.15	0.31
mean_PeakUpDownVel_mean * H2000's	10 (-182 to 202)			-2.2 (-4.9 to 0.54)		
mean_PeakUpDownVel_mean * H3000's	-52 (-219 to 115)			-2.1 (-4.5 to 0.31)		
subj_char.sd(Intercept)	13 (NA to NA)			1.2 (NA to NA)		
Residual.sdObservation	68 (NA to NA)			0.93 (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:	8			
	Beta D	iv Theta	Theta div Beta			
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	0.83 (-73 to 75)	0.98	>0.99	4.0 (-11 to 19)	0.61	0.81
mean_APexc_COV	0.02 (-4.5 to 4.5)	>0.99	>0.99	-0.09 (-1.0 to 0.84)	0.85	0.85
group_char		0.24	0.83		0.47	0.81
H1000's	_			_		
H2000's	7.6 (-111 to 126)			8.4 (-16 to 33)		
H3000's	-78 (-182 to 26)			-6.9 (-28 to 15)		
mean_APexc_COV * group_char		0.41	0.83		0.48	0.81
mean_APexc_COV * H2000's	-0.68 (-6.8 to 5.5)			-0.51 (-1.8 to 0.75)		
mean_APexc_COV * H3000's	2.4 (-2.9 to 7.6)			0.12 (-0.96 to 1.2)		
subj_char.sd(Intercept)	0.00 (NA to NA)			3.1 (NA to NA)		
Residual.sdObservation	83 (NA to NA)			17 (NA to NA)		

Changes in	mean_APexc_mean	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)	-0.28 (-71 to 71)	>0.99	>0.99	3.4 (-11 to 18)	0.64	0.85		
mean_APexc_mean	27 (-1,222 to 1,277)	0.97	>0.99	-15 (-266 to 236)	0.90	0.90		
group_char		0.49	>0.99		0.30	0.78		
H1000's	_			_				
H2000's	2.8 (-100 to 106)			-16 (-37 to 4.9)				
H3000's	-45 (-136 to 45)			-10 (-29 to 7.9)				
mean_APexc_mean * group_char		0.62	>0.99		0.39	0.78		
mean_APexc_mean * H2000's	-216 (-2,303 to 1,871)			292 (-128 to 713)				
mean_APexc_mean * H3000's	701 (-1,052 to 2,454)			128 (-226 to 481)				
subj_char.sd(Intercept)	0.00 (NA to NA)			1.9 (NA to NA)				
Residual.sdObservation	83 (NA to NA)			17 (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)	1.7 (-65 to 69)	0.96	0.99	5.8 (-8.0 to 20)	0.41	0.92
mean_MLexc_COV	-0.03 (-4.5 to 4.4)	0.99	0.99	-0.22 (-1.1 to 0.69)	0.63	0.92
group_char		0.45	0.99		0.77	0.92
H1000's	_			_		
H2000's	-9.3 (-96 to 78)			-2.1 (-20 to 16)		
H3000's	-59 (-159 to 40)			-7.3 (-28 to 13)		
mean_MLexc_COV * group_char		0.60	0.99		0.92	0.92
mean_MLexc_COV * H2000's	0.18 (-5.7 to 6.0)			-0.08 (-1.3 to 1.1)		
mean_MLexc_COV * H3000's	2.9 (-3.6 to 9.4)			0.18 (-1.1 to 1.5)		
subj_char.sd(Intercept)	0.00 (NA to NA)			2.7 (NA to NA)		
Residual.sdObservation	83 (NA to NA)			17 (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)	0.94 (-57 to 59)	0.97	>0.99	2.6 (-9.1 to 14)	0.66	0.88	
mean_MLexc_mean	3.6 (-691 to 698)	>0.99	>0.99	-0.74 (-141 to 140)	>0.99	>0.99	
group_char		0.62	>0.99		0.51	0.88	
H1000's	_			_			
H2000's	-5.8 (-81 to 70)			-9.1 (-24 to 6.3)			
H3000's	-35 (-114 to 43)			-4.6 (-21 to 12)			
mean_MLexc_mean * group_char		0.80	>0.99		0.61	0.88	
mean_MLexc_mean * H2000's	-13 (-864 to 838)			66 (-106 to 238)			
mean_MLexc_mean * H3000's	229 (-670 to 1,128)			-2.3 (-185 to 180)			
subj_char.sd(Intercept)	0.00 (NA to NA)			3.1 (NA to NA)			
Residual.sdObservation	84 (NA to NA)			17 (NA to NA)			

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

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 False discovery rate correction for multiple testing

Changes in	mean_StepDur	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)	-0.01 (-56 to 56)	>0.99	>0.99	2.2 (-9.1 to 13)	0.70	0.94	
mean_StepDur	1.3 (-56 to 59)	0.96	>0.99	0.41 (-11 to 12)	0.94	0.94	
group_char		0.33	0.85		0.38	0.94	
H1000's	_			_			
H2000's	0.55 (-91 to 92)			-13 (-32 to 5.4)			
H3000's	-73 (-175 to 29)			-6.0 (-27 to 15)			
mean_StepDur * group_char		0.42	0.85		0.49	0.94	
mean_StepDur * H2000's	-9.5 (-118 to 99)			13 (-8.6 to 35)			
mean_StepDur * H3000's	84 (-50 to 219)			2.0 (-25 to 29)			
subj_char.sd(Intercept)	0.00 (NA to NA)			2.6 (NA to NA)			
Residual.sdObservation	83 (NA to NA)			17 (NA to NA)			

Changes in	mean_UDexc_COV	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)	0.14 (-49 to 49)	>0.99	>0.99	4.0 (-6.0 to 14)	0.43	0.84
mean_UDexc_COV	0.09 (-3.5 to 3.7)	0.96	>0.99	-0.11 (-0.84 to 0.61)	0.76	0.84
group_char		0.14	0.50		0.51	0.84
H1000's	_			_		
H2000's	-6.6 (-78 to 65)			-6.6 (-21 to 8.0)		
H3000's	-74 (-153 to 4.4)			-8.6 (-25 to 7.4)		
mean_UDexc_COV * group_char		0.25	0.50		0.84	0.84
mean_UDexc_COV * H2000's	-0.02 (-5.1 to 5.0)			0.27 (-0.76 to 1.3)		
mean_UDexc_COV * H3000's	4.0 (-1.3 to 9.3)			0.28 (-0.81 to 1.4)		
subj_char.sd(Intercept)	0.00 (NA to NA)			2.6 (NA to NA)		
Residual.sdObservation	83 (NA to NA)			17 (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 Di	Beta Div Theta				Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value		
(Intercept)	2.1 (-51 to 56)	0.94	0.97	2.4 (-8.6 to 13)	0.67	0.97		
mean_UDexc_mean	-36 (-2,184 to 2,111)	0.97	0.97	7.6 (-433 to 448)	0.97	0.97		
group_char		0.16	0.32		0.64	0.97		
H1000's	_			_				
H2000's	-4.8 (-77 to 67)			-5.9 (-21 to 9.0)				
H3000's	63 (-15 to 141)			-7.2 (-23 to 9.0)				
mean_UDexc_mean * group_char		0.069	0.28		0.92	0.97		
mean_UDexc_mean * H2000's	-87 (-2,929 to 2,756)			116 (-468 to 700)				
mean_UDexc_mean * H3000's	-2,942 (-5,882 to -1.6)			90 (-515 to 696)				
subj_char.sd(Intercept)	0.00 (NA to NA)			2.4 (NA to NA)				
Residual.sd_Observation	82 (NA to NA)			17 (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)	0.17 (-46 to 47)	>0.99	>0.99	2.2 (-7.1 to 12)	0.64	0.85
mean_StanceDur	0.84 (-33 to 35)	0.96	>0.99	0.25 (-6.6 to 7.1)	0.94	0.94
group_char		0.36	0.96		0.37	0.85
H1000's	_			_		
H2000's	-2.3 (-77 to 73)			-11 (-26 to 4.3)		
H3000's	-60 (-145 to 26)			-4.9 (-22 to 12)		
mean_StanceDur * group_char		0.48	0.96		0.49	0.85
mean_StanceDur * H2000's	-4.3 (-69 to 60)			7.7 (-5.2 to 21)		
mean_StanceDur * H3000's	48 (-34 to 130)			0.22 (-16 to 17)		
subj_char.sd(Intercept)	0.00 (NA to NA)			2.6 (NA to NA)		
Residual.sdObservation	83 (NA to NA)			17 (NA to NA)		

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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)	-0.01 (-56 to 56)	>0.99	>0.99	2.2 (-9.1 to 13)	0.70	0.94	
mean_GaitCycleDur	0.67 (-28 to 29)	0.96	>0.99	0.21 (-5.5 to 6.0)	0.94	0.94	
group_char		0.33	0.84		0.38	0.94	
H1000's	_			_			
H2000's	0.58 (-91 to 92)			-13 (-32 to 5.4)			
H3000's	-73 (-174 to 29)			-5.9 (-27 to 15)			
mean_GaitCycleDur * group_char		0.42	0.84		0.49	0.94	
mean_GaitCycleDur * H2000's	-4.8 (-59 to 50)			6.6 (-4.3 to 18)			
mean_GaitCycleDur * H3000's	42 (-25 to 109)			0.92 (-13 to 15)			
subj_char.sd(Intercept)	0.00 (NA to NA)			2.6 (NA to NA)			
Residual.sdObservation	83 (NA to NA)			17 (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)	1.9 (-41 to 45)	0.93	0.97	2.5 (-6.4 to 11)	0.58	>0.99
mean_PeakUpDownVel_mean	-3.0 (-169 to 163)	0.97	0.97	0.20 (-34 to 35)	>0.99	>0.99
group_char		0.041	0.083		0.70	>0.99
H1000's	_			_		
H2000's	-6.0 (-66 to 54)			-4.2 (-17 to 8.3)		
H3000's	72 (5.9 to 137)			-5.5 (-19 to 8.2)		
mean_PeakUpDownVel_mean * group_char		0.009	0.037		0.98	>0.99
mean_PeakUpDownVel_mean * H2000's	-3.4 (-226 to 220)			4.3 (-42 to 51)		
mean_PeakUpDownVel_mean * H3000's	-307 (-538 to -75)			2.6 (-45 to 51)		
subj_char.sd(Intercept)	0.00 (NA to NA)			2.6 (NA to NA)		
Residual.sdObservation	81 (NA to NA)			17 (NA to NA)		

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 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)	13 (-5.2 to 31)	0.16	0.51	0.13 (-3.9 to 4.2)	0.95	0.96
mean_APexc_COV	-0.50 (-1.6 to 0.60)	0.37	0.51	0.09 (-0.16 to 0.34)	0.49	0.96
group_char		0.54	0.54		0.96	0.96
H1000's	_			_		
H2000's	-16 (-46 to 13)			0.63 (-5.9 to 7.1)		
H3000's	-2.1 (-32 to 28)			0.87 (-5.9 to 7.6)		
mean_APexc_COV * group_char		0.39	0.51		0.80	0.96
mean_APexc_COV * H2000's	0.81 (-0.68 to 2.3)			-0.10 (-0.43 to 0.23)		
mean_APexc_COV * H3000's	-0.10 (-1.6 to 1.4)			-0.10 (-0.43 to 0.23)		
subj_char.sd(Intercept)	7.6 (NA to NA)			0.78 (NA to NA)		
Residual.sdObservation	20 (NA to NA)			4.8 (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)	3.2 (-12 to 19)	0.69	0.95	0.20 (-3.4 to 3.8)	0.91	0.91
mean_APexc_mean	35 (-231 to 301)	0.80	0.95	24 (-38 to 86)	0.45	0.91
group_char		0.95	0.95		0.89	0.91
H1000's	_			_		
H2000's	0.98 (-21 to 23)			0.34 (-4.7 to 5.4)		
H3000's	-3.0 (-27 to 21)			1.3 (-4.0 to 6.6)		
mean_APexc_mean * group_char		0.87	0.95		0.73	0.91
mean_APexc_mean * H2000's	-46 (-481 to 390)			-25 (-125 to 74)		
mean_APexc_mean * H3000's	-133 (-631 to 365)			-43 (-155 to 69)		
subj_char.sd(Intercept)	7.6 (NA to NA)			0.71 (NA to NA)		
Residual.sdObservation	20 (NA to NA)			4.8 (NA to NA)		

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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)	4.8 (-9.2 to 19)	0.50	0.95	1.2 (-1.9 to 4.2)	0.45	0.92	
mean_MLexc_COV	0.02 (-0.86 to 0.89)	0.97	0.97	0.03 (-0.17 to 0.22)	0.80	0.92	
group_char		0.62	0.95		0.92	0.92	
H1000's	_			_			
H2000's	-8.8 (-30 to 12)			-0.66 (-5.2 to 3.9)			
H3000's	-9.5 (-32 to 13)			0.40 (-4.6 to 5.4)			
mean_MLexc_COV * group_char		0.71	0.95		0.89	0.92	
mean_MLexc_COV * H2000's	0.54 (-0.81 to 1.9)			-0.03 (-0.33 to 0.27)			
mean_MLexc_COV * H3000's	0.04 (-1.4 to 1.5)			-0.08 (-0.42 to 0.25)			
subj_char.sd(Intercept)	7.8 (NA to NA)			0.75 (NA to NA)			
Residual.sdObservation	20 (NA to NA)			4.8 (NA to NA)			

Changes in	mean_MLexc_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)	6.6 (-7.2 to 20)	0.35	0.92	1.0 (-2.1 to 4.1)	0.52	0.91
mean_MLexc_mean	-18 (-174 to 138)	0.82	0.92	6.4 (-29 to 42)	0.72	0.91
group_char		0.66	0.92		0.91	0.91
H1000's	_			_		
H2000's	2.5 (-16 to 21)			-0.30 (-4.5 to 3.9)		
H3000's	-6.7 (-27 to 14)			-0.97 (-5.6 to 3.6)		
mean_MLexc_mean * group_char		0.92	0.92		0.89	0.91
mean_MLexc_mean * H2000's	-43 (-246 to 160)			-8.8 (-55 to 37)		
mean_MLexc_mean * H3000's	-25 (-254 to 203)			2.0 (-50 to 54)		
subj_char.sd(Intercept)	7.9 (NA to NA)			0.76 (NA to NA)		
Residual.sdObservation	20 (NA to NA)			4.8 (NA to NA)		

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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)	4.1 (-8.5 to 17)	0.52	0.86	0.97 (-1.9 to 3.9)	0.51	0.98	
mean_StepDur	1.1 (-11 to 14)	0.86	0.86	0.60 (-2.4 to 3.6)	0.69	0.98	
group_char		0.70	0.86		0.98	0.98	
H1000's	_			_			
H2000's	8.1 (-14 to 30)			-0.21 (-5.3 to 4.9)			
H3000's	-2.7 (-27 to 22)			-0.56 (-6.1 to 5.0)			
mean_StepDur * group_char		0.60	0.86		0.95	0.98	
mean_StepDur * H2000's	-12 (-39 to 14)			-0.96 (-7.1 to 5.2)			
mean_StepDur * H3000's	-8.7 (-40 to 22)			-0.14 (-7.4 to 7.1)			
subj_char.sd(Intercept)	7.6 (NA to NA)			0.64 (NA to NA)			
Residual.sdObservation	20 (NA to NA)			4.8 (NA to NA)			

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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)	7.0 (-4.3 to 18)	0.22	0.90	1.0 (-1.6 to 3.6)	0.44	0.98	
mean_UDexc_COV	-0.16 (-0.96 to 0.65)	0.71	0.98	0.04 (-0.15 to 0.23)	0.67	0.98	
group_char		0.76	0.98		0.98	0.98	
H1000's	_			_			
H2000's	-0.96 (-18 to 16)			-0.37 (-4.1 to 3.4)			
H3000's	-6.9 (-26 to 12)			-0.23 (-4.5 to 4.1)			
mean_UDexc_COV * group_char		0.98	0.98		0.92	0.98	
mean_UDexc_COV * H2000's	-0.02 (-1.2 to 1.1)			-0.05 (-0.32 to 0.21)			
mean_UDexc_COV * H3000's	-0.13 (-1.4 to 1.1)			-0.05 (-0.34 to 0.25)			
subj_char.sd(Intercept)	7.5 (NA to NA)			0.68 (NA to NA)			
Residual.sdObservation	20 (NA to NA)			4.8 (NA to NA)			

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 False discovery rate correction for multiple testing

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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)	4.6 (-8.3 to 18)	0.48	>0.99	2.6 (-0.32 to 5.6)	0.081	0.32
mean_UDexc_mean	19 (-484 to 523)	0.94	>0.99	-47 (-164 to 71)	0.44	0.58
group_char		0.66	>0.99		0.39	0.58
H1000's	_			_		
H2000's	-1.9 (-20 to 16)			-2.9 (-7.0 to 1.3)		
H3000's	-8.7 (-28 to 11)			-1.8 (-6.2 to 2.5)		
mean_UDexc_mean * group_char		>0.99	>0.99		0.65	0.65
mean_UDexc_mean * H2000's	18 (-677 to 713)			77 (-85 to 238)		
mean_UDexc_mean * H3000's	-8.6 (-728 to 711)			44 (-120 to 209)		
subj_char.sd(Intercept)	7.6 (NA to NA)			0.64 (NA to NA)		
Residual.sdObservation	20 (NA to NA)			4.8 (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)	4.1 (-6.5 to 15)	0.44	0.84	1.1 (-1.3 to 3.5)	0.37	0.96	
mean_StanceDur	0.74 (-6.7 to 8.1)	0.84	0.84	0.33 (-1.4 to 2.1)	0.72	0.96	
group_char		0.71	0.84		0.96	0.96	
H1000's	_			_			
H2000's	4.3 (-14 to 23)			-0.42 (-4.6 to 3.8)			
H3000's	-5.3 (-26 to 15)			-0.60 (-5.3 to 4.1)			
mean_StanceDur * group_char		0.76	0.84		0.96	0.96	
mean_StanceDur * H2000's	-5.4 (-21 to 10)			-0.52 (-4.1 to 3.1)			
mean_StanceDur * H3000's	-3.6 (-22 to 15)			-0.09 (-4.5 to 4.3)			
subj_char.sd(Intercept)	7.6 (NA to NA)			0.63 (NA to NA)			
Residual.sdObservation	20 (NA to NA)			4.8 (NA to NA)			

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² False discovery rate correction for multiple testing

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Changes in	mean_GaitCycleDur	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)	4.1 (-8.5 to 17)	0.53	0.86	0.97 (-1.9 to 3.9)	0.51	0.98
mean_GaitCycleDur	0.55 (-5.7 to 6.8)	0.86	0.86	0.30 (-1.2 to 1.8)	0.69	0.98
group_char		0.70	0.86		0.98	0.98
H1000's	_			_		
H2000's	8.1 (-14 to 30)			-0.21 (-5.3 to 4.9)		
H3000's	-2.6 (-27 to 22)			-0.56 (-6.1 to 5.0)		
mean_GaitCycleDur * group_char		0.61	0.86		0.95	0.98
mean_GaitCycleDur * H2000's	-6.2 (-19 to 6.9)			-0.48 (-3.6 to 2.6)		
mean_GaitCycleDur * H3000's	-4.4 (-20 to 11)			-0.07 (-3.7 to 3.6)		
subj_char.sd(Intercept)	7.6 (NA to NA)			0.64 (NA to NA)		
Residual.sd_Observation	20 (NA to NA)			4.8 (NA to NA)		

Changes in	mean_PeakUpDownVel_mean	for Cluster:	9				
	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)	4.9 (-5.4 to 15)	0.35	0.77	2.1 (-0.27 to 4.4)	0.083	0.33	
mean_PeakUpDownVel_mean	0.65 (-38 to 39)	0.97	0.97	-2.4 (-12 to 6.7)	0.61	0.77	
group_char		0.38	0.77		0.48	0.77	
H1000's	_			_			
H2000's	-2.6 (-18 to 13)			-2.1 (-5.6 to 1.3)			
H3000's	-12 (-28 to 5.1)			-1.0 (-4.8 to 2.8)			
mean_PeakUpDownVel_mean * group_char		0.95	0.97		0.77	0.77	
mean_PeakUpDownVel_mean * H2000's	4.7 (-49 to 58)			4.5 (-8.1 to 17)			
mean_PeakUpDownVel_mean * H3000's	9.6 (-48 to 67)			1.1 (-12 to 14)			
subj_char.sd(Intercept)	7.6 (NA to NA)			0.67 (NA to NA)			
Residual.sdObservation	20 (NA to NA)			4.8 (NA to NA)			

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 $^{^{2}}$ 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)	1.0 (-5.9 to 8.0)	0.77	0.77	6.2 (-3.6 to 16)	0.21	0.85
mean_APexc_COV	0.06 (-0.35 to 0.48)	0.76	0.77	-0.12 (-0.72 to 0.48)	0.70	0.94
group_char		0.50	0.77		0.76	0.94
H1000's	_			_		
H2000's	5.5 (-4.9 to 16)			-3.8 (-18 to 11)		
H3000's	-0.21 (-10 to 10)			-5.1 (-19 to 9.1)		
mean_APexc_COV * group_char		0.45	0.77		0.94	0.94
mean_APexc_COV * H2000's	-0.28 (-0.82 to 0.25)			0.01 (-0.75 to 0.77)		
mean_APexc_COV * H3000's	-0.03 (-0.54 to 0.47)			0.10 (-0.61 to 0.81)		
subj_char.sd(Intercept)	3.8 (NA to NA)			2.3 (NA to NA)		
Residual.sdObservation	7.3 (NA to NA)			11 (NA to NA)		

Changes in	mean_APexc_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)	0.66 (-5.1 to 6.4)	0.82	0.82	2.6 (-5.8 to 11)	0.54	0.93		
mean_APexc_mean	26 (-73 to 124)	0.61	0.81	33 (-116 to 181)	0.67	0.93		
group_char		0.44	0.81		0.93	0.93		
H1000's				_				
H2000's	-3.0 (-11 to 5.0)			-2.0 (-14 to 9.6)				
H3000's	2.0 (-5.8 to 9.7)			-1.8 (-13 to 9.1)				
mean_APexc_mean * group_char		0.40	0.81		0.92	0.93		
mean_APexc_mean * H2000's	62 (-90 to 215)			-42 (-266 to 183)				
mean_APexc_mean * H3000's	-54 (-210 to 103)			-34 (-259 to 191)				
subj_char.sd(Intercept)	3.8 (NA to NA)			2.1 (NA to NA)				
Residual.sdObservation	7.3 (NA to NA)			11 (NA to NA)				

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 $^{^{1}}$ CI = Confidence Interval 2 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)	4.2 (-1.1 to 9.4)	0.12	0.48	3.3 (-3.5 to 10)	0.34	0.62
mean_MLexc_COV	-0.15 (-0.49 to 0.19)	0.39	0.78	0.07 (-0.38 to 0.52)	0.75	0.75
group_char		0.94	0.94		0.21	0.62
H1000's	_			_		
H2000's	-0.05 (-7.7 to 7.6)			-8.9 (-19 to 1.3)		
H3000's	1.2 (-6.8 to 9.2)			-1.9 (-13 to 9.1)		
mean_MLexc_COV * group_char		0.89	0.94		0.46	0.62
mean_MLexc_COV * H2000's	-0.03 (-0.53 to 0.46)			0.34 (-0.34 to 1.0)		
mean_MLexc_COV * H3000's	-0.13 (-0.65 to 0.39)			-0.12 (-0.86 to 0.62)		
subj_char.sd(Intercept)	3.9 (NA to NA)			2.0 (NA to NA)		
Residual.sdObservation	7.2 (NA to NA)			11 (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)	-0.07 (-5.1 to 5.0)	0.98	>0.99	4.7 (-2.4 to 12)	0.19	0.77		
mean_MLexc_mean	26 (-31 to 82)	0.37	>0.99	-4.1 (-86 to 78)	0.92	0.99		
group_char		>0.99	>0.99		0.70	0.99		
H1000's	_			_				
H2000's	0.07 (-6.8 to 7.0)			-3.6 (-13 to 6.0)				
H3000's	-0.34 (-7.4 to 6.8)			-3.7 (-13 to 6.0)				
mean_MLexc_mean * group_char		0.97	>0.99		0.99	0.99		
mean_MLexc_mean * H2000's	-8.7 (-80 to 63)			-5.9 (-111 to 99)				
mean_MLexc_mean * H3000's	-1.8 (-78 to 74)			0.86 (-108 to 110)				
subj_char.sd(Intercept)	4.0 (NA to NA)			2.2 (NA to NA)				
Residual.sdObservation	7.3 (NA to NA)			11 (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)	0.52 (-4.0 to 5.1)	0.82	0.82	7.0 (0.28 to 14)	0.041	0.16
mean_StepDur	1.7 (-2.8 to 6.1)	0.46	0.61	-2.9 (-9.8 to 4.0)	0.41	0.80
group_char		0.17	0.35		0.60	0.80
H1000's	_			_		
H2000's	-5.5 (-13 to 2.2)			-3.9 (-15 to 7.6)		
H3000's	3.4 (-5.3 to 12)			-6.0 (-19 to 6.5)		
mean_StepDur * group_char		0.15	0.35		0.94	0.94
mean_StepDur * H2000's	7.0 (-1.9 to 16)			-1.0 (-15 to 13)		
mean_StepDur * H3000's	-5.2 (-17 to 6.3)			2.5 (-14 to 19)		
subj_char.sd(Intercept)	3.8 (NA to NA)			2.3 (NA to NA)		
Residual.sdObservation	7.2 (NA to NA)			11 (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)	0.10 (-4.1 to 4.3)	0.96	0.96	5.9 (-0.15 to 12)	0.056	0.22	
mean_UDexc_COV	0.16 (-0.14 to 0.45)	0.29	0.96	-0.12 (-0.57 to 0.33)	0.60	0.80	
group_char		0.73	0.96		0.46	0.80	
H1000's	_			_			
H2000's	-1.9 (-8.0 to 4.2)			-4.9 (-14 to 3.8)			
H3000's	0.72 (-6.4 to 7.9)			-5.1 (-15 to 5.1)			
mean_UDexc_COV * group_char		0.73	0.96		0.95	0.95	
mean_UDexc_COV * H2000's	0.09 (-0.32 to 0.50)			0.06 (-0.56 to 0.68)			
mean_UDexc_COV * H3000's	-0.10 (-0.59 to 0.39)			0.12 (-0.61 to 0.85)			
subj_char.sd(Intercept)	3.8 (NA to NA)			2.2 (NA to NA)			
Residual.sdObservation	7.3 (NA to NA)			11 (NA to NA)			

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

Changes in	mean_UDexc_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)	3.6 (-1.0 to 8.3)	0.13	0.41	3.2 (-3.6 to 10)	0.35	0.72	
mean_UDexc_mean	-68 (-244 to 109)	0.45	0.45	50 (-220 to 321)	0.72	0.72	
group_char		0.31	0.41		0.36	0.72	
H1000's	_			_			
H2000's	0.83 (-5.9 to 7.6)			-6.9 (-17 to 2.8)			
H3000's	-4.4 (-11 to 2.6)			-2.4 (-12 to 7.8)			
mean_UDexc_mean * group_char		0.24	0.41		0.71	0.72	
mean_UDexc_mean * H2000's	-50 (-296 to 196)			107 (-267 to 482)			
mean_UDexc_mean * H3000's	168 (-95 to 431)			-55 (-456 to 347)			
subj_char.sd(Intercept)	4.0 (NA to NA)			2.0 (NA to NA)			
Residual.sdObservation	7.2 (NA to NA)			11 (NA to NA)			

Changes in	mean_StanceDur	for Cluster:	10				
	Beta	Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	0.67 (-3.2 to 4.5)	0.73	0.73	6.8 (1.1 to 12)	0.019	0.076	
mean_StanceDur	1.1 (-1.5 to 3.7)	0.41	0.55	-1.9 (-6.0 to 2.2)	0.36	0.68	
group_char		0.14	0.28		0.51	0.68	
H1000's	_			_			
H2000's	-4.9 (-11 to 1.5)			-3.7 (-13 to 5.7)			
H3000's	2.8 (-4.5 to 10)			-5.7 (-16 to 4.8)			
mean_StanceDur * group_char		0.10	0.28		0.92	0.92	
mean_StanceDur * H2000's	4.5 (-0.65 to 9.7)			-0.85 (-8.9 to 7.2)			
mean_StanceDur * H3000's	-3.2 (-10 to 3.6)			1.6 (-8.6 to 12)			
subj_char.sd(Intercept)	3.8 (NA to NA)			2.3 (NA to NA)			
Residual.sdObservation	7.2 (NA to NA)			11 (NA to NA)			

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 False discovery rate correction for multiple testing

mean_GaitCycleDur	for Cluster:	10			
Beta D	Theta div Beta				
Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
0.52 (-4.0 to 5.1)	0.82	0.82	7.0 (0.27 to 14)	0.041	0.17
0.84 (-1.4 to 3.1)	0.46	0.61	-1.4 (-4.9 to 2.0)	0.41	0.80
	0.18	0.36		0.60	0.80
_			_		
-5.5 (-13 to 2.3)			-3.9 (-15 to 7.6)		
3.3 (-5.4 to 12)			-6.0 (-19 to 6.5)		
	0.15	0.36		0.94	0.94
3.4 (-0.99 to 7.9)			-0.47 (-7.3 to 6.3)		
-2.6 (-8.3 to 3.1)			1.2 (-7.2 to 9.6)		
3.8 (NA to NA)			2.3 (NA to NA)		
7.2 (NA to NA)			11 (NA to NA)		
	Beta D Beta (95% CI) 0.52 (-4.0 to 5.1) 0.84 (-1.4 to 3.1) -5.5 (-13 to 2.3) 3.3 (-5.4 to 12) 3.4 (-0.99 to 7.9) -2.6 (-8.3 to 3.1) 3.8 (NA to NA)	Beta Div Theta Beta (95% CI) p-value 0.52 (-4.0 to 5.1) 0.82 0.84 (-1.4 to 3.1) 0.46	Beta Div Theta Beta (95% CI) p-value q-value 0.52 (-4.0 to 5.1) 0.82 0.82 0.84 (-1.4 to 3.1) 0.46 0.61 0.18 0.36	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Changes in	mean_PeakUpDownVel_mean	for Cluster:	10				
	Beta Div T	heta		Theta div Beta			
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	3.3 (-0.51 to 7.1)	0.089	0.36	3.0 (-2.4 to 8.5)	0.27	0.70	
mean_PeakUpDownVel_mean	-5.3 (-19 to 8.3)	0.44	0.44	5.8 (-15 to 27)	0.59	0.77	
group_char		0.43	0.44		0.35	0.70	
H1000's	_			_			
H2000's	0.62 (-5.0 to 6.2)			-5.9 (-14 to 2.1)			
H3000's	-3.3 (-9.3 to 2.7)			-2.4 (-11 to 6.1)			
mean_PeakUpDownVel_mean * group_char		0.31	0.44		0.77	0.77	
mean_PeakUpDownVel_mean * H2000's	-3.6 (-22 to 15)			5.8 (-23 to 35)			
mean_PeakUpDownVel_mean * H3000's	11 (-8.7 to 31)			-5.2 (-36 to 26)			
subj_char.sd(Intercept)	3.9 (NA to NA)			2.1 (NA to NA)			
Residual.sdObservation	7.3 (NA to NA)			11 (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)	8.5 (-14 to 31)	0.46	0.56	0.82 (-5.5 to 7.1)	0.80	0.91
mean_APexc_COV	-0.42 (-1.8 to 0.99)	0.56	0.56	-0.02 (-0.41 to 0.37)	0.91	0.91
group_char		0.40	0.56		0.52	0.91
H1000's	_			_		
H2000's	17 (-17 to 52)			-3.1 (-13 to 6.5)		
H3000's	-4.9 (-35 to 25)			2.2 (-6.2 to 11)		
mean_APexc_COV * group_char		0.37	0.56		0.88	0.91
mean_APexc_COV * H2000's	-0.75 (-2.6 to 1.1)			0.09 (-0.42 to 0.60)		
mean_APexc_COV * H3000's	0.23 (-1.4 to 1.8)			0.00 (-0.44 to 0.43)		
subj_char.sd(Intercept)	9.0 (NA to NA)			2.6 (NA to NA)		
Residual.sdObservation	19 (NA to NA)			5.1 (NA to NA)		

Changes in	mean_APexc_mean	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)	-3.7 (-22 to 15)	0.69	0.69	0.62 (-4.3 to 5.6)	0.81	0.95	
mean_APexc_mean	105 (-217 to 427)	0.52	0.69	-2.6 (-89 to 83)	0.95	0.95	
group_char		0.58	0.69		0.039	0.16	
H1000's	_			_			
H2000's	12 (-14 to 39)			-1.0 (-8.1 to 6.1)			
H3000's	0.77 (-23 to 24)			6.3 (0.03 to 13)			
mean_APexc_mean * group_char		0.54	0.69		0.15	0.29	
mean_APexc_mean * H2000's	-278 (-778 to 222)			-5.1 (-139 to 129)			
mean_APexc_mean * H3000's	-73 (-513 to 366)			-106 (-224 to 12)			
subj_char.sd(Intercept)	8.6 (NA to NA)			2.5 (NA to NA)			
Residual.sdObservation	19 (NA to NA)			5.0 (NA to NA)			

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

Changes in	mean_MLexc_COV	for Cluster:	11			
	Beta D	Theta div Beta				
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	2.4 (-13 to 18)	0.76	0.98	0.45 (-3.8 to 4.7)	0.84	0.99
mean_MLexc_COV	-0.03 (-0.98 to 0.93)	0.95	0.98	0.00 (-0.26 to 0.26)	0.99	0.99
group_char		0.92	0.98		0.52	0.99
H1000's	_			_		
H2000's	-0.28 (-24 to 23)			-1.2 (-7.6 to 5.1)		
H3000's	-4.4 (-28 to 19)			-3.7 (-10 to 2.7)		
mean_MLexc_COV * group_char		0.98	0.98		0.13	0.52
mean_MLexc_COV * H2000's	-0.09 (-1.6 to 1.4)			0.00 (-0.41 to 0.41)		
mean_MLexc_COV * H3000's	0.06 (-1.4 to 1.5)			0.38 (-0.02 to 0.78)		
subj_char.sd(Intercept)	8.8 (NA to NA)			2.6 (NA to NA)		
Residual.sdObservation	19 (NA to NA)			5.0 (NA to NA)		

Changes in	mean_MLexc_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)	-3.5 (-19 to 12)	0.65	0.65	0.66 (-3.6 to 4.9)	0.76	0.93			
mean_MLexc_mean	75 (-118 to 269)	0.44	0.65	-2.5 (-55 to 50)	0.93	0.93			
group_char		0.55	0.65		0.20	0.78			
H1000's	_			_					
H2000's	11 (-11 to 32)			-1.6 (-7.5 to 4.4)					
H3000's	1.1 (-19 to 22)			3.5 (-2.2 to 9.1)					
mean_MLexc_mean * group_char		0.47	0.65		0.70	0.93			
mean_MLexc_mean * H2000's	-149 (-392 to 95)			4.2 (-62 to 71)					
mean_MLexc_mean * H3000's	-66 (-300 to 168)			-18 (-82 to 46)					
subj_char.sd(Intercept)	8.8 (NA to NA)			2.6 (NA to NA)					
Residual.sdObservation	19 (NA to NA)			5.1 (NA to NA)					

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Changes in	mean_StepDur	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)	-3.9 (-18 to 10)	0.58	0.60	0.67 (-3.1 to 4.5)	0.73	0.91		
mean_StepDur	6.4 (-7.4 to 20)	0.36	0.60	-0.21 (-3.9 to 3.4)	0.91	0.91		
group_char		0.60	0.60		0.034	0.14		
H1000's	_			_				
H2000's	13 (-12 to 38)			-0.43 (-7.2 to 6.4)				
H3000's	4.7 (-19 to 28)			7.9 (1.5 to 14)				
mean_StepDur * group_char		0.47	0.60		0.086	0.17		
mean_StepDur * H2000's	-18 (-47 to 12)			-1.1 (-8.9 to 6.8)				
mean_StepDur * H3000's	-9.7 (-39 to 19)			-8.7 (-17 to -0.96)				
subj_char.sd(Intercept)	8.6 (NA to NA)			2.6 (NA to NA)				
Residual.sdObservation	19 (NA to NA)			5.0 (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)	0.66 (-12 to 13)	0.92	0.92	0.57 (-2.8 to 3.9)	0.74	0.95
mean_UDexc_COV	0.11 (-0.78 to 1.0)	0.81	0.92	-0.01 (-0.25 to 0.23)	0.95	0.95
group_char		0.88	0.92		0.17	0.69
H1000's	_			_		
H2000's	2.7 (-16 to 21)			-1.2 (-6.3 to 3.8)		
H3000's	-2.7 (-23 to 18)			4.1 (-1.4 to 9.6)		
mean_UDexc_COV * group_char		0.88	0.92		0.62	0.95
mean_UDexc_COV * H2000's	-0.32 (-1.6 to 0.95)			0.00 (-0.34 to 0.35)		
mean_UDexc_COV * H3000's	-0.08 (-1.5 to 1.3)			-0.17 (-0.54 to 0.21)		
subj_char.sd(Intercept)	8.7 (NA to NA)			2.5 (NA to NA)		
Residual.sdObservation	19 (NA to NA)			5.1 (NA to NA)		

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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)	13 (-0.86 to 27)	0.066	0.16	0.32 (-3.6 to 4.2)	0.87	0.93			
mean_UDexc_mean	-463 (-988 to 62)	0.084	0.16	6.3 (-138 to 150)	0.93	0.93			
group_char		0.14	0.16		0.83	0.93			
H1000's	_			_					
H2000's	-18 (-39 to 2.6)			-1.3 (-7.1 to 4.4)					
H3000's	-18 (-39 to 3.0)			0.50 (-5.3 to 6.3)					
mean_UDexc_mean * group_char		0.16	0.16		0.87	0.93			
mean_UDexc_mean * H2000's	684 (-75 to 1,443)			3.8 (-204 to 212)					
mean_UDexc_mean * H3000's	588 (-184 to 1,359)			52 (-160 to 263)					
subj_char.sd(Intercept)	8.4 (NA to NA)			2.6 (NA to NA)					
Residual.sdObservation	19 (NA to NA)			5.1 (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)	-2.8 (-15 to 9.3)	0.65	0.71	0.65 (-2.6 to 3.9)	0.70	0.90		
mean_StanceDur	3.8 (-4.6 to 12)	0.37	0.71	-0.14 (-2.4 to 2.1)	0.90	0.90		
group_char		0.71	0.71		0.028	0.11		
H1000's	_			_				
H2000's	8.8 (-12 to 30)			-0.68 (-6.4 to 5.0)				
H3000's	4.1 (-16 to 24)			6.6 (1.2 to 12)				
mean_StanceDur * group_char		0.51	0.71		0.090	0.18		
mean_StanceDur * H2000's	-9.1 (-27 to 8.4)			-0.56 (-5.2 to 4.1)				
mean_StanceDur * H3000's	-6.9 (-24 to 11)			-5.2 (-9.8 to -0.52)				
subj_char.sd(Intercept)	8.6 (NA to NA)			2.6 (NA to NA)				
Residual.sdObservation	19 (NA to NA)			5.0 (NA to NA)				

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Changes in	mean_GaitCycleDur	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)	-3.9 (-18 to 10)	0.58	0.60	0.67 (-3.1 to 4.5)	0.73	0.91		
mean_GaitCycleDur	3.2 (-3.7 to 10)	0.36	0.60	-0.11 (-1.9 to 1.7)	0.91	0.91		
group_char		0.60	0.60		0.032	0.13		
H1000's	_			_				
H2000's	13 (-12 to 38)			-0.44 (-7.2 to 6.4)				
H3000's	4.7 (-19 to 28)			7.9 (1.5 to 14)				
mean_GaitCycleDur * group_char		0.47	0.60		0.083	0.17		
mean_GaitCycleDur * H2000's	-8.8 (-23 to 5.9)			-0.53 (-4.4 to 3.4)				
mean_GaitCycleDur * H3000's	-4.9 (-19 to 9.6)			-4.4 (-8.3 to -0.52)				
subj_char.sd(Intercept)	8.6 (NA to NA)			2.6 (NA to NA)				
Residual.sdObservation	19 (NA to NA)			5.0 (NA to NA)				
_								

Changes in	mean_PeakUpDownVel_mean	for Cluster:	11			
	Beta Div T	Beta Div Theta				
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	9.1 (-2.3 to 20)	0.12	0.18	0.32 (-2.8 to 3.5)	0.84	0.91
mean_PeakUpDownVel_mean	-30 (-70 to 11)	0.15	0.18	0.65 (-10 to 12)	0.91	0.91
group_char		0.16	0.18		0.77	0.91
H1000's	_			_		
H2000's	-14 (-32 to 3.3)			-1.6 (-6.5 to 3.3)		
H3000's	-14 (-31 to 2.8)			0.05 (-4.6 to 4.7)		
mean_PeakUpDownVel_mean * group_char		0.18	0.18		0.69	0.91
mean_PeakUpDownVel_mean * H2000's	52 (-8.2 to 112)			1.4 (-15 to 18)		
mean_PeakUpDownVel_mean * H3000's	42 (-15 to 99)			6.5 (-9.0 to 22)		
subj_char.sd(Intercept)	8.5 (NA to NA)			2.5 (NA to NA)		
Residual.sd_Observation	19 (NA to NA)			5.1 (NA to NA)		

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

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 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)	9.1 (-14 to 32)	0.44	0.79	0.59 (-19 to 20)	0.95	0.98
mean_APexc_COV	-0.34 (-1.7 to 0.99)	0.62	0.79	0.02 (-1.1 to 1.1)	0.98	0.98
group_char		0.79	0.79		0.75	0.98
H1000's	_			_		
H2000's	4.8 (-35 to 44)			-14 (-48 to 21)		
H3000's	-8.1 (-40 to 24)			-3.4 (-31 to 24)		
mean_APexc_COV * group_char		0.31	0.79		0.74	0.98
mean_APexc_COV * H2000's	-0.62 (-2.6 to 1.3)			0.58 (-1.1 to 2.3)		
mean_APexc_COV * H3000's	0.63 (-0.93 to 2.2)			0.04 (-1.3 to 1.4)		
subj_char.sd(Intercept)	7.6 (NA to NA)			11 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)		

Changes in	mean_APexc_mean	for Cluster:	12			
	Beta Di	Theta div Beta				
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	3.8 (-15 to 23)	0.69	0.92	1.2 (-15 to 17)	0.89	0.97
mean_APexc_mean	-6.3 (-340 to 327)	0.97	0.97	-5.7 (-285 to 274)	0.97	0.97
group_char		0.003	0.007		0.087	0.17
H1000's	_			_		
H2000's	51 (20 to 82)			-27 (-55 to 0.06)		
H3000's	8.4 (-16 to 33)			0.50 (-21 to 22)		
mean_APexc_mean * group_char		< 0.001	< 0.001		0.049	0.17
mean_APexc_mean * H2000's	-1,484 (-2,143 to -826)			634 (67 to 1,200)		
mean_APexc_mean * H3000's	-84 (-561 to 394)			-67 (-482 to 348)		
subj_char.sd(Intercept)	4.0 (NA to NA)			9.9 (NA to NA)		
Residual.sdObservation	22 (NA to NA)			18 (NA to NA)		

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Changes in	mean_MLexc_COV	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)	-7.2 (-26 to 12)	0.45	0.46	0.19 (-17 to 17)	0.98	0.98
mean_MLexc_COV	0.74 (-0.49 to 2.0)	0.24	0.46	0.05 (-1.1 to 1.2)	0.94	0.98
group_char		0.46	0.46		0.085	0.17
H1000's	_			_		
H2000's	19 (-12 to 49)			20 (-6.6 to 46)		
H3000's	11 (-15 to 38)			-8.8 (-32 to 15)		
mean_MLexc_COV * group_char		0.13	0.46		0.060	0.17
mean_MLexc_COV * H2000's	-2.2 (-4.3 to -0.04)			-1.6 (-3.4 to 0.19)		
mean_MLexc_COV * H3000's	-0.42 (-2.2 to 1.3)			0.47 (-1.0 to 2.0)		
subj_char.sd(Intercept)	7.3 (NA to NA)			11 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)		

Changes in	mean_MLexc_mean	for Cluster:	12						
	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 (-6.2 to 29)	0.20	0.68	1.5 (-14 to 17)	0.84	0.92			
mean_MLexc_mean	-98 (-301 to 104)	0.34	0.68	-8.2 (-175 to 158)	0.92	0.92			
group_char		0.61	0.81		0.022	0.044			
H1000's	_			_					
H2000's	-4.9 (-31 to 21)			-17 (-39 to 4.9)					
H3000's	7.1 (-16 to 30)			12 (-7.9 to 32)					
mean_MLexc_mean * group_char		0.92	0.92		0.003	0.012			
mean_MLexc_mean * H2000's	-57 (-339 to 225)			185 (-42 to 411)					
mean_MLexc_mean * H3000's	-16 (-269 to 236)			-163 (-373 to 47)					
subj_char.sd(Intercept)	7.3 (NA to NA)			11 (NA to NA)					
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)					

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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)	3.3 (-13 to 20)	0.70	0.93	1.6 (-13 to 16)	0.82	0.90
mean_StepDur	0.14 (-17 to 17)	0.99	0.99	-0.87 (-15 to 13)	0.90	0.90
group_char		0.091	0.18		0.070	0.14
H1000's	_			_		
H2000's	28 (-3.3 to 59)			-21 (-47 to 4.6)		
H3000's	26 (-2.2 to 54)			13 (-11 to 37)		
mean_StepDur * group_char		0.016	0.063		0.038	0.14
mean_StepDur * H2000's	-51 (-89 to -14)			27 (-3.1 to 58)		
mean_StepDur * H3000's	-30 (-66 to 5.5)			-22 (-52 to 8.0)		
subj_char.sd(Intercept)	6.3 (NA to NA)			10 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (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)	6.0 (-8.1 to 20)	0.41	0.56	1.1 (-11 to 13)	0.86	0.96
mean_UDexc_COV	-0.20 (-1.2 to 0.79)	0.70	0.70	-0.02 (-0.82 to 0.78)	0.96	0.96
group_char		0.42	0.56		0.27	0.55
H1000's	_			_		
H2000's	6.4 (-17 to 30)			-13 (-33 to 7.0)		
H3000's	14 (-7.0 to 36)			3.8 (-15 to 22)		
mean_UDexc_COV * group_char		0.29	0.56		0.14	0.55
mean_UDexc_COV * H2000's	-1.3 (-2.9 to 0.34)			0.92 (-0.38 to 2.2)		
mean_UDexc_COV * H3000's	-0.71 (-2.2 to 0.79)			-0.45 (-1.7 to 0.78)		
subj_char.sd(Intercept)	7.1 (NA to NA)			11 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)		

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

Changes in	mean_UDexc_mean	for Cluster:	12				
	Beta D	Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	1.5 (-16 to 19)	0.86	0.86	-0.09 (-15 to 15)	>0.99	>0.99	
mean_UDexc_mean	86 (-626 to 799)	0.81	0.86	41 (-543 to 625)	0.89	>0.99	
group_char		0.26	0.75		0.45	0.90	
H1000's	_			_			
H2000's	-21 (-47 to 4.4)			7.1 (-15 to 29)			
H3000's	-12 (-35 to 12)			-6.5 (-27 to 14)			
mean_UDexc_mean * group_char		0.38	0.75		0.41	0.90	
mean_UDexc_mean * H2000's	422 (-567 to 1,412)			-330 (-1,142 to 482)			
mean_UDexc_mean * H3000's	643 (-258 to 1,543)			162 (-580 to 905)			
subj_char.sd(Intercept)	7.2 (NA to NA)			11 (NA to NA)			
Residual.sdObservation	23 (NA to NA)			18 (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)	3.2 (-11 to 18)	0.66	0.88	1.5 (-11 to 14)	0.81	0.90	
mean_StanceDur	0.20 (-10 to 11)	0.97	0.97	-0.54 (-8.9 to 7.8)	0.90	0.90	
group_char		0.15	0.30		0.13	0.25	
H1000's	_			_			
H2000's	18 (-8.2 to 43)			-16 (-38 to 6.1)			
H3000's	22 (-2.2 to 46)			9.4 (-11 to 30)			
mean_StanceDur * group_char		0.028	0.11		0.061	0.24	
mean_StanceDur * H2000's	-28 (-51 to -5.5)			15 (-3.5 to 33)			
mean_StanceDur * H3000's	-18 (-40 to 4.0)			-13 (-31 to 5.4)			
subj_char.sd(Intercept)	6.6 (NA to NA)			10 (NA to NA)			
Residual.sdObservation	23 (NA to NA)			18 (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:	12				
Beta D	Beta Div Theta			Theta div Beta		
Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
3.4 (-13 to 20)	0.69	0.93	1.6 (-13 to 16)	0.82	0.90	
0.05 (-8.6 to 8.7)	>0.99	>0.99	-0.43 (-7.4 to 6.5)	0.90	0.90	
	0.090	0.18		0.070	0.14	
_			_			
28 (-3.2 to 59)			-21 (-47 to 4.6)			
26 (-2.2 to 54)			13 (-11 to 37)			
	0.015	0.061		0.038	0.14	
-26 (-45 to -6.9)			14 (-1.5 to 29)			
-15 (-33 to 2.7)			-11 (-26 to 4.0)			
6.3 (NA to NA)			10 (NA to NA)			
23 (NA to NA)			18 (NA to NA)			
	Beta D Beta (95% CI) 3.4 (-13 to 20) 0.05 (-8.6 to 8.7) 28 (-3.2 to 59) 26 (-2.2 to 54) -26 (-45 to -6.9) -15 (-33 to 2.7) 6.3 (NA to NA)	Beta Div Theta Beta (95% CI) p-value 3.4 (-13 to 20) 0.69 0.05 (-8.6 to 8.7) >0.99	Beta Div Theta Beta (95% CI) p-value q-value 3.4 (-13 to 20) 0.69 0.93 0.05 (-8.6 to 8.7) >0.99 >0.99 0.090 0.18 28 (-3.2 to 59) 26 (-2.2 to 54) -26 (-45 to -6.9) -15 (-33 to 2.7) 6.3 (NA to NA)	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	

Changes in	mean_PeakUpDownVel_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)	0.14 (-13 to 13)	0.98	0.98	0.26 (-11 to 12)	0.97	0.97
mean_PeakUpDownVel_mean	14 (-36 to 65)	0.58	0.77	2.6 (-39 to 44)	0.90	0.97
group_char		0.16	0.62		0.16	0.32
H1000's	_			_		
H2000's	-20 (-41 to 0.33)			9.8 (-8.3 to 28)		
H3000's	-8.8 (-27 to 9.9)			-8.0 (-24 to 8.5)		
mean_PeakUpDownVel_mean * group_char		0.36	0.72		0.089	0.32
mean_PeakUpDownVel_mean * H2000's	35 (-37 to 108)			-41 (-100 to 18)		
mean_PeakUpDownVel_mean * H3000's	47 (-18 to 113)			20 (-33 to 74)		
subj_char.sd(Intercept)	6.7 (NA to NA)			11 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (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)	-1.6 (-29 to 26)	0.91	0.99	0.45 (-15 to 16)	0.96	>0.99
mean_APexc_COV	0.02 (-1.6 to 1.6)	0.99	0.99	0.00 (-0.92 to 0.92)	>0.99	>0.99
group_char		0.32	0.91		0.83	>0.99
H1000's	_			_		
H2000's	-32 (-79 to 15)			4.9 (-22 to 32)		
H3000's	0.99 (-37 to 39)			6.7 (-15 to 29)		
mean_APexc_COV * group_char		0.46	0.91		0.91	>0.99
mean_APexc_COV * H2000's	1.2 (-1.2 to 3.5)			-0.29 (-1.6 to 1.0)		
mean_APexc_COV * H3000's	-0.03 (-1.9 to 1.9)			-0.14 (-1.2 to 0.94)		
subj_char.sd(Intercept)	7.1 (NA to NA)			3.7 (NA to NA)		
Residual.sdObservation	25 (NA to NA)			15 (NA to NA)		

Changes in	mean_APexc_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)	-17 (-37 to 3.6)	0.11	0.24	0.22 (-11 to 12)	0.97	0.97	
mean_APexc_mean	282 (-75 to 639)	0.12	0.24	3.3 (-199 to 205)	0.97	0.97	
group_char		0.25	0.30		0.027	0.11	
H1000's	_			_			
H2000's	2.7 (-33 to 38)			-19 (-39 to 1.6)			
H3000's	22 (-5.5 to 50)			8.7 (-7.2 to 25)			
mean_APexc_mean * group_char		0.30	0.30		0.057	0.11	
mean_APexc_mean * H2000's	-152 (-832 to 528)			362 (-23 to 747)			
mean_APexc_mean * H3000's	-461 (-1,041 to 119)			-143 (-473 to 187)			
subj_char.sd(Intercept)	6.9 (NA to NA)			4.3 (NA to NA)			
Residual.sdObservation	25 (NA to NA)			14 (NA to NA)			

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 False discovery rate correction for multiple testing

Changes in	mean_MLexc_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)	1.7 (-15 to 18)	0.84	0.84	-0.86 (-10 to 8.5)	0.86	0.86
mean_MLexc_COV	-0.20 (-1.2 to 0.81)	0.69	0.84	0.08 (-0.49 to 0.66)	0.78	0.86
group_char		0.52	0.84		0.32	0.64
H1000's	_			_		
H2000's	-23 (-65 to 18)			15 (-8.1 to 39)		
H3000's	1.1 (-29 to 32)			-4.4 (-22 to 13)		
mean_MLexc_COV * group_char		0.69	0.84		0.16	0.62
mean_MLexc_COV * H2000's	1.1 (-1.6 to 3.9)			-1.2 (-2.7 to 0.37)		
mean_MLexc_COV * H3000's	-0.07 (-2.1 to 1.9)			0.54 (-0.60 to 1.7)		
subj_char.sd(Intercept)	7.1 (NA to NA)			4.0 (NA to NA)		
Residual.sdObservation	26 (NA to NA)			14 (NA to NA)		

Changes in	mean_MLexc_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)	-18 (-35 to -1.5)	0.033	0.070	1.0 (-8.7 to 11)	0.84	0.89
mean_MLexc_mean	213 (15 to 412)	0.035	0.070	-7.7 (-121 to 106)	0.89	0.89
group_char		0.32	0.32		0.014	0.052
H1000's	_			_		
H2000's	10 (-21 to 41)			-20 (-37 to -1.8)		
H3000's	18 (-5.4 to 42)			6.8 (-6.9 to 20)		
mean_MLexc_mean * group_char		0.21	0.28		0.026	0.052
mean_MLexc_mean * H2000's	-210 (-544 to 124)			204 (15 to 393)		
mean_MLexc_mean * H3000's	-225 (-488 to 38)			-42 (-193 to 108)		
subj_char.sd(Intercept)	6.8 (NA to NA)			5.1 (NA to NA)		
Residual.sdObservation	25 (NA to NA)			14 (NA to NA)		

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Changes in	mean_StepDur	for Cluster:	13				
	Beta	Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	-9.7 (-26 to 7.0)	0.26	0.36	0.23 (-9.1 to 9.6)	0.96	0.97	
mean_StepDur	9.2 (-8.0 to 26)	0.30	0.36	0.19 (-9.4 to 9.8)	0.97	0.97	
group_char		0.36	0.36		0.008	0.028	
H1000's	_			_			
H2000's	23 (-16 to 61)			-29 (-51 to -7.3)			
H3000's	17 (-13 to 48)			8.7 (-8.7 to 26)			
mean_StepDur * group_char		0.22	0.36		0.014	0.028	
mean_StepDur * H2000's	-36 (-83 to 10)			36 (9.8 to 62)			
mean_StepDur * H3000's	-23 (-64 to 19)			-8.3 (-31 to 15)			
subj_char.sd(Intercept)	7.3 (NA to NA)			4.5 (NA to NA)			
Residual.sdObservation	25 (NA to NA)			14 (NA to NA)			

Changes in	mean_UDexc_COV	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)	-9.8 (-24 to 4.2)	0.17	0.26	0.23 (-7.8 to 8.2)	0.95	0.96	
mean_UDexc_COV	0.64 (-0.32 to 1.6)	0.19	0.26	0.01 (-0.54 to 0.56)	0.96	0.96	
group_char		0.33	0.33		0.13	0.47	
H1000's	_			_			
H2000's	19 (-8.8 to 47)			-12 (-28 to 4.3)			
H3000's	12 (-12 to 37)			7.1 (-7.1 to 21)			
mean_UDexc_COV * group_char		0.12	0.26		0.23	0.47	
mean_UDexc_COV * H2000's	-1.8 (-3.6 to -0.06)			0.69 (-0.32 to 1.7)			
mean_UDexc_COV * H3000's	-0.90 (-2.5 to 0.73)			-0.28 (-1.2 to 0.66)			
subj_char.sd(Intercept)	7.0 (NA to NA)			3.5 (NA to NA)			
Residual.sdObservation	25 (NA to NA)			15 (NA to NA)			

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² False discovery rate correction for multiple testing

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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)	10 (-5.9 to 26)	0.22	0.22	-0.24 (-9.4 to 8.9)	0.96	0.96	
mean_UDexc_mean	-489 (-1,119 to 141)	0.13	0.17	27 (-332 to 386)	0.88	0.96	
group_char		0.019	0.061		0.10	0.19	
H1000's	_			_			
H2000's	-47 (-79 to -14)			19 (0.95 to 38)			
H3000's	-14 (-38 to 10)			0.26 (-13 to 14)			
mean_UDexc_mean * group_char		0.031	0.061		0.023	0.094	
mean_UDexc_mean * H2000's	1,691 (421 to 2,961)			-885 (-1,609 to -162)			
mean_UDexc_mean * H3000's	593 (-328 to 1,514)			116 (-409 to 640)			
subj_char.sd(Intercept)	7.3 (NA to NA)			3.8 (NA to NA)			
Residual.sdObservation	25 (NA to NA)			14 (NA to NA)			

Changes in	mean_StanceDur	for Cluster:	13				
	Beta	Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	-7.8 (-22 to 6.4)	0.28	0.43	0.31 (-7.6 to 8.2)	0.94	0.98	
mean_StanceDur	5.2 (-5.2 to 16)	0.33	0.43	0.08 (-5.7 to 5.9)	0.98	0.98	
group_char		0.48	0.48		0.008	0.025	
H1000's	_			_			
H2000's	14 (-17 to 45)			-23 (-40 to -5.4)			
H3000's	13 (-12 to 39)			7.8 (-6.7 to 22)			
mean_StanceDur * group_char		0.27	0.43		0.013	0.025	
mean_StanceDur * H2000's	-19 (-45 to 7.4)			20 (5.5 to 35)			
mean_StanceDur * H3000's	-13 (-37 to 12)			-5.1 (-19 to 8.6)			
subj_char.sd(Intercept)	7.3 (NA to NA)			4.5 (NA to NA)			
Residual.sdObservation	25 (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_GaitCycleDur	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)	-9.7 (-26 to 7.0)	0.25	0.36	0.22 (-9.1 to 9.6)	0.96	0.97	
mean_GaitCycleDur	4.6 (-4.0 to 13)	0.29	0.36	0.10 (-4.7 to 4.9)	0.97	0.97	
group_char		0.36	0.36		0.009	0.028	
H1000's	_			_			
H2000's	22 (-16 to 61)			-29 (-50 to -7.2)			
H3000's	18 (-13 to 48)			8.7 (-8.6 to 26)			
mean_GaitCycleDur * group_char		0.22	0.36		0.014	0.028	
mean_GaitCycleDur * H2000's	-18 (-41 to 5.1)			18 (4.8 to 31)			
mean_GaitCycleDur * H3000's	-11 (-32 to 9.2)			-4.2 (-16 to 7.4)			
subj_char.sd(Intercept)	7.3 (NA to NA)			4.5 (NA to NA)			
Residual.sdObservation	25 (NA to NA)			14 (NA to NA)			

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)	9.1 (-4.1 to 22)	0.18	0.18	0.10 (-7.4 to 7.6)	0.98	0.98
mean_PeakUpDownVel_mean	-45 (-95 to 5.4)	0.080	0.11	1.3 (-27 to 30)	0.93	0.98
group_char		0.016	0.048		0.15	0.30
H1000's	_			_		
H2000's	-39 (-65 to -12)			15 (-0.19 to 30)		
H3000's	-13 (-34 to 8.0)			2.1 (-9.8 to 14)		
mean_PeakUpDownVel_mean * group_char		0.024	0.048		0.033	0.13
mean_PeakUpDownVel_mean * H2000's	131 (35 to 227)			-66 (-121 to -11)		
mean_PeakUpDownVel_mean * H3000's	54 (-18 to 126)			3.3 (-38 to 44)		
subj_char.sd(Intercept)	6.8 (NA to NA)			3.8 (NA to NA)		
Residual.sdObservation	25 (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:	14			
	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 (-66 to 49)	0.76	0.76	0.28 (-1.1 to 1.6)	0.69	0.90
mean_APexc_COV	0.79 (-2.7 to 4.3)	0.65	0.76	-0.01 (-0.09 to 0.08)	0.90	0.90
group_char		0.002	0.006		0.56	0.90
H1000's	_			_		
H2000's	-11 (-100 to 78)			-0.95 (-3.1 to 1.2)		
H3000's	128 (47 to 210)			0.17 (-1.8 to 2.1)		
mean_APexc_COV * group_char		0.006	0.011		0.69	0.90
mean_APexc_COV * H2000's	-0.35 (-4.9 to 4.2)			0.04 (-0.07 to 0.15)		
mean_APexc_COV * H3000's	-5.4 (-9.5 to -1.3)			0.01 (-0.09 to 0.11)		
subj_char.sd(Intercept)	0.00 (NA to NA)			0.55 (NA to NA)		
Residual.sdObservation	74 (NA to NA)			1.6 (NA to NA)		

Changes in	mean_APexc_mean	for Cluster:	14			
	Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	9.5 (-42 to 61)	0.72	0.82	0.21 (-0.91 to 1.3)	0.71	0.95
mean_APexc_mean	-102 (-999 to 795)	0.82	0.82	-0.32 (-20 to 19)	0.97	0.97
group_char		0.033	0.065		0.010	0.019
H1000's	_			_		
H2000's	-30 (-105 to 45)			2.5 (0.83 to 4.2)		
H3000's	58 (-8.4 to 124)			0.59 (-0.91 to 2.1)		
mean_APexc_mean * group_char		0.029	0.065		0.001	0.005
mean_APexc_mean * H2000's	343 (-1,134 to 1,820)			-57 (-90 to -25)		
mean_APexc_mean * H3000's	-1,491 (-2,817 to -165)			-5.8 (-35 to 24)		
subj_char.sd(Intercept)	4.0 (NA to NA)			0.64 (NA to NA)		
Residual.sdObservation	75 (NA to NA)			1.5 (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_MLexc_COV	for Cluster:	14			
	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 (-44 to 39)	0.91	0.91	0.20 (-0.80 to 1.2)	0.70	0.93
mean_MLexc_COV	0.43 (-2.2 to 3.1)	0.75	0.91	0.00 (-0.06 to 0.06)	>0.99	>0.99
group_char		0.095	0.27		0.19	0.40
H1000's	_			_		
H2000's	-25 (-92 to 41)			-1.3 (-2.9 to 0.23)		
H3000's	52 (-13 to 117)			-0.06 (-1.6 to 1.5)		
mean_MLexc_COV * group_char		0.14	0.27		0.20	0.40
mean_MLexc_COV * H2000's	0.89 (-3.6 to 5.4)			0.09 (-0.01 to 0.20)		
mean_MLexc_COV * H3000's	-3.6 (-7.9 to 0.62)			0.03 (-0.07 to 0.13)		
subj_char.sd(Intercept)	0.00 (NA to NA)			0.55 (NA to NA)		
Residual.sdObservation	76 (NA to NA)			1.6 (NA to NA)		

Changes in	mean_MLexc_mean	for Cluster:	14				
	Beta D	Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	19 (-23 to 62)	0.37	0.45	0.22 (-0.76 to 1.2)	0.66	0.88	
mean_MLexc_mean	-194 (-691 to 304)	0.45	0.45	-0.31 (-12 to 11)	0.96	0.96	
group_char		0.022	0.061		0.022	0.045	
H1000's	_			_			
H2000's	-33 (-96 to 29)			1.8 (0.42 to 3.2)			
H3000's	50 (-8.3 to 108)			0.24 (-1.1 to 1.6)			
mean_MLexc_mean * group_char		0.030	0.061		0.003	0.012	
mean_MLexc_mean * H2000's	239 (-451 to 928)			-21 (-37 to -6.1)			
mean_MLexc_mean * H3000's	-604 (-1,267 to 60)			1.6 (-14 to 17)			
subj_char.sd(Intercept)	0.00 (NA to NA)			0.60 (NA to NA)			
Residual.sdObservation	75 (NA to NA)			1.6 (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_StepDur	for Cluster:	14				
		Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	15 (-30 to 59)	0.52	0.86	0.21 (-0.73 to 1.1)	0.66	0.88	
mean_StepDur	-12 (-58 to 34)	0.62	0.86	-0.01 (-0.96 to 0.93)	0.98	0.98	
group_char		0.67	0.86		0.006	0.013	
H1000's	_			_			
H2000's	-35 (-112 to 42)			2.7 (1.0 to 4.3)			
H3000's	-9.1 (-86 to 68)			0.56 (-1.1 to 2.2)			
mean_StepDur * group_char		0.86	0.86		0.001	0.005	
mean_StepDur * H2000's	26 (-67 to 118)			-3.6 (-5.5 to -1.6)			
mean_StepDur * H3000's	9.6 (-91 to 110)			-0.29 (-2.4 to 1.9)			
subj_char.sd(Intercept)	0.00 (NA to NA)			0.60 (NA to NA)			
Residual.sdObservation	77 (NA to NA)			1.6 (NA to NA)			

Changes in	mean_UDexc_COV	for Cluster:	14			
	Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	9.1 (-26 to 44)	0.61	0.75	0.21 (-0.60 to 1.0)	0.61	0.81
mean_UDexc_COV	-0.42 (-3.0 to 2.2)	0.75	0.75	0.00 (-0.06 to 0.06)	0.96	0.96
group_char		0.002	0.005		0.53	0.81
H1000's	_			_		
H2000's	-28 (-83 to 28)			0.69 (-0.59 to 2.0)		
H3000's	80 (24 to 137)			0.51 (-0.80 to 1.8)		
mean_UDexc_COV * group_char		0.002	0.005		0.45	0.81
mean_UDexc_COV * H2000's	1.0 (-2.8 to 4.9)			-0.05 (-0.14 to 0.03)		
mean_UDexc_COV * H3000's	-5.8 (-9.8 to -1.8)			-0.01 (-0.10 to 0.08)		
subj_char.sd(Intercept)	0.00 (NA to NA)			0.55 (NA to NA)		
Residual.sdObservation	74 (NA to NA)			1.6 (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_UDexc_mean	for Cluster:	14				
	Beta D	Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	-2.5 (-46 to 41)	0.91	0.91	0.17 (-0.81 to 1.1)	0.74	0.95	
mean_UDexc_mean	261 (-1,447 to 1,969)	0.76	0.91	1.2 (-36 to 38)	0.95	0.95	
group_char		0.14	0.38		0.064	0.18	
H1000's	_			_			
H2000's	-16 (-80 to 49)			-1.4 (-2.8 to 0.03)			
H3000's	47 (-16 to 110)			0.21 (-1.2 to 1.6)			
mean_UDexc_mean * group_char		0.19	0.38		0.090	0.18	
mean_UDexc_mean * H2000's	80 (-2,425 to 2,585)			56 (2.0 to 111)			
mean_UDexc_mean * H3000's	-1,955 (-4,394 to 484)			6.4 (-46 to 59)			
subj_char.sd(Intercept)	0.00 (NA to NA)			0.58 (NA to NA)			
Residual.sdObservation	76 (NA to NA)			1.6 (NA to NA)			

Changes in	mean_StanceDur	for Cluster:	14				
	Beta	Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	14 (-23 to 51)	0.46	0.82	0.21 (-0.58 to 1.0)	0.60	0.80	
mean_StanceDur	-8.0 (-35 to 19)	0.57	0.82	-0.01 (-0.57 to 0.55)	0.96	0.96	
group_char		0.61	0.82		0.005	0.010	
H1000's	_			_			
H2000's	-32 (-96 to 32)			2.2 (0.88 to 3.6)			
H3000's	-12 (-77 to 53)			0.51 (-0.90 to 1.9)			
mean_StanceDur * group_char		0.83	0.83		< 0.001	0.002	
mean_StanceDur * H2000's	16 (-39 to 71)			-2.2 (-3.4 to -1.1)			
mean_StanceDur * H3000's	10 (-51 to 72)			-0.16 (-1.4 to 1.1)			
subj_char.sd(Intercept)	0.00 (NA to NA)			0.60 (NA to NA)			
Residual.sdObservation	77 (NA to NA)			1.6 (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_GaitCycleDur	for Cluster:	14			
	Beta Div Theta			Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	15 (-30 to 59)	0.52	0.86	0.21 (-0.73 to 1.1)	0.66	0.88
mean_GaitCycleDur	-5.9 (-29 to 17)	0.61	0.86	-0.01 (-0.48 to 0.47)	0.98	0.98
group_char		0.67	0.86		0.007	0.013
H1000's	_			_		
H2000's	-35 (-112 to 42)			2.6 (0.99 to 4.3)		
H3000's	-9.4 (-87 to 68)			0.55 (-1.1 to 2.2)		
mean_GaitCycleDur * group_char		0.86	0.86		0.001	0.005
mean_GaitCycleDur * H2000's	13 (-33 to 59)			-1.8 (-2.7 to -0.81)		
mean_GaitCycleDur * H3000's	5.0 (-45 to 55)			-0.14 (-1.2 to 0.94)		
subj_char.sd(Intercept)	0.00 (NA to NA)			0.60 (NA to NA)		
Residual.sdObservation	77 (NA to NA)			1.6 (NA to NA)		

Changes in	mean_PeakUpDownVel_mean	for Cluster:	14			
	Beta Div T	heta		Theta div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	-0.77 (-36 to 34)	0.97	0.97	0.18 (-0.59 to 0.95)	0.65	0.86
mean_PeakUpDownVel_mean	20 (-114 to 153)	0.77	0.97	0.07 (-2.7 to 2.9)	0.96	0.96
group_char		0.21	0.59		0.022	0.052
H1000's	_			_		
H2000's	-15 (-68 to 38)			-1.4 (-2.5 to -0.21)		
H3000's	34 (-19 to 86)			0.20 (-0.96 to 1.4)		
mean_PeakUpDownVel_mean * group_char		0.30	0.59		0.026	0.052
mean_PeakUpDownVel_mean * H2000's	4.3 (-189 to 197)			5.2 (1.1 to 9.3)		
mean_PeakUpDownVel_mean * H3000's	-130 (-321 to 60)			0.62 (-3.4 to 4.6)		
subj_char.sd(Intercept)	0.00 (NA to NA)			0.59 (NA to NA)		
Residual.sdObservation	76 (NA to NA)			1.6 (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_APexc_COV	for Cluster:	9			
	Beta D	iv Theta		Theta I	Div Beta	
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	9.2 (-1.4 to 20)	0.088	0.27	1.3 (-1.0 to 3.6)	0.28	0.65
mean_APexc_COV	-0.26 (-0.85 to 0.33)	0.38	0.38	0.02 (-0.11 to 0.15)	0.81	0.81
group_char		0.22	0.33		0.43	0.65
H1000's	_			_		
H2000's	0.33 (-8.3 to 9.0)			-1.1 (-2.9 to 0.62)		
H3000's	-6.7 (-16 to 2.7)			-0.93 (-2.9 to 1.0)		
subj_char.sd(Intercept)	7.6 (NA to NA)			0.72 (NA to NA)		
Residual.sdObservation	20 (NA to NA)			4.8 (NA to NA)		

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

² False discovery rate correction for multiple testing

Changes in	mean_APexc_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)	5.4 (-6.1 to 17)	0.36	0.54	1.1 (-1.4 to 3.7)	0.39	0.74
mean_APexc_mean	-5.8 (-193 to 182)	0.95	0.95	7.1 (-36 to 50)	0.75	0.75
group_char		0.087	0.26		0.49	0.74
H1000's	_			_		
H2000's	-1.5 (-9.5 to 6.6)			-0.95 (-2.6 to 0.66)		
H3000's	-9.0 (-17 to -0.56)			-0.69 (-2.4 to 1.0)		
subj_char.sd(Intercept)	7.6 (NA to NA)			0.69 (NA to NA)		
Residual.sdObservation	20 (NA to NA)			4.8 (NA to NA)		

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

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

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)	2.1 (-7.9 to 12)	0.68	0.68	1.5 (-0.63 to 3.7)	0.16	0.49
mean_MLexc_COV	0.20 (-0.38 to 0.78)	0.50	0.68	0.00 (-0.13 to 0.13)	0.98	0.98
group_char		0.081	0.24		0.37	0.56
H1000's	_			_		
H2000's	-1.2 (-9.0 to 6.6)			-1.0 (-2.6 to 0.50)		
H3000's	-8.8 (-17 to -0.73)			-0.80 (-2.4 to 0.79)		
subj_char.sd(Intercept)	7.7 (NA to NA)			0.71 (NA to NA)		
Residual.sdObservation	20 (NA to NA)			4.8 (NA to NA)		

Changes in	mean_MLexc_mean	for Cluster:	9			
	Beta D	iv Theta		Theta I	Div Beta	
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	8.6 (-0.03 to 17)	0.051	0.12	1.3 (-0.60 to 3.2)	0.18	0.55
mean_MLexc_mean	-44 (-129 to 42)	0.32	0.32	3.0 (-16 to 22)	0.76	0.76
group_char		0.078	0.12		0.36	0.55
H1000's	_			_		
H2000's	-1.1 (-8.9 to 6.7)			-1.1 (-2.6 to 0.48)		
H3000's	-8.8 (-17 to -0.78)			-0.80 (-2.4 to 0.78)		
subj_char.sd(Intercept)	7.8 (NA to NA)			0.72 (NA to NA)		
Residual.sdObservation	20 (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_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)	7.3 (-3.3 to 18)	0.18	0.27	1.2 (-1.3 to 3.6)	0.35	0.69
mean_StepDur	-2.5 (-13 to 7.7)	0.63	0.63	0.39 (-2.0 to 2.8)	0.75	0.75
group_char		0.067	0.20		0.46	0.69
H1000's	_			_		
H2000's	-1.8 (-9.7 to 6.1)			-0.97 (-2.5 to 0.60)		
H3000's	-9.5 (-18 to -1.2)			-0.71 (-2.4 to 0.96)		
subj_char.sd(Intercept)	7.6 (NA to NA)			0.66 (NA to NA)		
Residual.sdObservation	20 (NA to NA)			4.8 (NA to NA)		

Changes in	mean_UDexc_COV	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)	7.5 (-0.43 to 15)	0.064	0.13	1.4 (-0.35 to 3.1)	0.12	0.35	
mean_UDexc_COV	-0.20 (-0.68 to 0.29)	0.43	0.43	0.01 (-0.10 to 0.12)	0.86	0.86	
group_char		0.089	0.13		0.37	0.55	
H1000's	_			_			
H2000's	-1.2 (-8.9 to 6.5)			-1.0 (-2.6 to 0.49)			
H3000's	-8.6 (-17 to -0.58)			-0.81 (-2.4 to 0.78)			
subj_char.sd(Intercept)	7.5 (NA to NA)			0.68 (NA to NA)			
Residual.sdObservation	20 (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_UDexc_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)	4.5 (-4.0 to 13)	0.30	0.44	1.6 (-0.22 to 3.5)	0.084	0.25
mean_UDexc_mean	23 (-263 to 310)	0.87	0.87	-4.7 (-71 to 61)	0.89	0.89
group_char		0.074	0.22		0.37	0.56
H1000's	_			_		
H2000's	-1.4 (-9.1 to 6.3)			-1.0 (-2.6 to 0.49)		
H3000's	-9.0 (-17 to -0.95)			-0.79 (-2.4 to 0.80)		
subj_char.sd(Intercept)	7.6 (NA to NA)			0.69 (NA to NA)		
Residual.sdObservation	20 (NA to NA)			4.8 (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)	6.1 (-3.1 to 15)	0.19	0.29	1.3 (-0.79 to 3.3)	0.23	0.66	
mean_StanceDur	-0.80 (-6.8 to 5.2)	0.79	0.79	0.20 (-1.2 to 1.6)	0.78	0.78	
group_char		0.074	0.22		0.44	0.66	
H1000's	_			_			
H2000's	-1.6 (-9.4 to 6.3)			-0.99 (-2.5 to 0.57)			
H3000's	-9.2 (-17 to -0.96)			-0.73 (-2.4 to 0.91)			
subj_char.sd(Intercept)	7.6 (NA to NA)			0.66 (NA to NA)			
Residual.sdObservation	20 (NA to NA)			4.8 (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 I	Div Beta	
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	7.3 (-3.3 to 18)	0.18	0.27	1.2 (-1.3 to 3.6)	0.35	0.69
mean_GaitCycleDur	-1.2 (-6.3 to 3.9)	0.64	0.64	0.20 (-1.0 to 1.4)	0.75	0.75
group_char		0.067	0.20		0.46	0.69
H1000's	_			_		
H2000's	-1.8 (-9.7 to 6.1)			-0.97 (-2.5 to 0.61)		
H3000's	-9.5 (-18 to -1.2)			-0.71 (-2.4 to 0.97)		
subj_char.sd(Intercept)	7.6 (NA to NA)			0.66 (NA to NA)		
Residual.sdObservation	20 (NA to NA)			4.8 (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)	3.9 (-3.4 to 11)	0.30	0.45	1.6 (0.03 to 3.2)	0.046	0.14
mean_PeakUpDownVel_mean	5.2 (-17 to 28)	0.65	0.65	-0.41 (-5.7 to 4.9)	0.88	0.88
group_char		0.069	0.21		0.38	0.58
H1000's	_			_		
H2000's	-1.5 (-9.3 to 6.2)			-1.0 (-2.6 to 0.51)		
H3000's	-9.1 (-17 to -1.1)			-0.78 (-2.4 to 0.82)		
subj_char.sd(Intercept)	7.6 (NA to NA)			0.68 (NA to NA)		
Residual.sdObservation	20 (NA to NA)			4.8 (NA to NA)		

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 $[\]frac{1}{2}$ CI = Confidence Interval $\frac{1}{2}$ 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)	2.8 (-0.90 to 6.4)	0.14	0.42	5.4 (0.56 to 10)	0.029	0.086	
mean_APexc_COV	-0.05 (-0.24 to 0.15)	0.64	0.96	-0.06 (-0.33 to 0.20)	0.64	0.64	
group_char		>0.99	>0.99		0.17	0.25	
H1000's	_			_			
H2000's	-0.18 (-3.5 to 3.2)			-3.8 (-7.8 to 0.19)			
H3000's	-0.04 (-3.8 to 3.7)			-3.0 (-7.6 to 1.5)			
subj_char.sd(Intercept)	3.9 (NA to NA)			2.2 (NA to NA)			
Residual.sdObservation	7.3 (NA to NA)			11 (NA to NA)			

Changes in	mean_APexc_mean	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)	0.45 (-3.6 to 4.5)	0.83	0.99	3.9 (-1.7 to 9.4)	0.17	0.26
mean_APexc_mean	30 (-34 to 93)	0.37	0.99	9.9 (-83 to 103)	0.83	0.83
group_char		0.99	0.99		0.067	0.20
H1000's	_			_		
H2000's	-0.21 (-3.4 to 3.0)			-4.1 (-7.8 to -0.47)		
H3000's	0.02 (-3.5 to 3.5)			-3.5 (-7.6 to 0.63)		
subj_char.sd(Intercept)	3.9 (NA to NA)			2.1 (NA to NA)		
Residual.sdObservation	7.3 (NA to NA)			11 (NA to NA)		

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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)	4.8 (1.2 to 8.5)	0.009	0.027	2.2 (-2.6 to 7.0)	0.37	0.37
mean_MLexc_COV	-0.20 (-0.40 to 0.01)	0.065	0.10	0.15 (-0.14 to 0.45)	0.30	0.37
group_char		0.92	0.92		0.045	0.14
H1000's	_			_		
H2000's	-0.55 (-3.7 to 2.6)			-4.2 (-7.7 to -0.61)		
H3000's	-0.57 (-3.9 to 2.8)			-3.6 (-7.4 to 0.24)		
subj_char.sd(Intercept)	3.9 (NA to NA)			2.1 (NA to NA)		
Residual.sdObservation	7.2 (NA to NA)			11 (NA to NA)		

Changes in	mean_MLexc_mean	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)	0.28 (-2.9 to 3.4)	0.86	0.91	4.9 (0.74 to 9.0)	0.021	0.062
mean_MLexc_mean	22 (-7.0 to 50)	0.14	0.42	-6.2 (-48 to 35)	0.77	0.77
group_char		0.91	0.91		0.046	0.069
H1000's	_			_		
H2000's	-0.69 (-3.9 to 2.5)			-4.2 (-7.8 to -0.56)		
H3000's	-0.48 (-3.8 to 2.9)			-3.6 (-7.5 to 0.19)		
subj_char.sd(Intercept)	4.0 (NA to NA)			2.2 (NA to NA)		
Residual.sdObservation	7.2 (NA to NA)			11 (NA to NA)		

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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)	-0.33 (-4.2 to 3.6)	0.87	0.99	6.9 (1.4 to 13)	0.015	0.040
mean_StepDur	2.6 (-1.0 to 6.2)	0.16	0.48	-2.8 (-8.3 to 2.7)	0.32	0.32
group_char		0.99	0.99		0.027	0.040
H1000's	_			_		
H2000's	-0.08 (-3.2 to 3.1)			-4.6 (-8.3 to -0.96)		
H3000's	0.18 (-3.3 to 3.6)			-4.3 (-8.4 to -0.26)		
subj_char.sd(Intercept)	3.9 (NA to NA)			2.3 (NA to NA)		
Residual.sdObservation	7.2 (NA to NA)			11 (NA to NA)		

Changes in	mean_UDexc_COV	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)	-0.10 (-3.1 to 2.9)	0.95	0.95	5.2 (1.1 to 9.3)	0.013	0.038
mean_UDexc_COV	0.17 (-0.01 to 0.36)	0.058	0.17	-0.07 (-0.34 to 0.20)	0.62	0.62
group_char		0.89	0.95		0.049	0.074
H1000's	_			_		
H2000's	-0.69 (-3.8 to 2.4)			-4.1 (-7.7 to -0.54)		
H3000's	-0.63 (-3.9 to 2.7)			-3.6 (-7.4 to 0.26)		
subj_char.sd(Intercept)	3.8 (NA to NA)			2.2 (NA to NA)		
Residual.sdObservation	7.2 (NA to NA)			11 (NA to NA)		

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Changes in	mean_UDexc_mean	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)	2.9 (-0.27 to 6.2)	0.073	0.22	2.6 (-1.8 to 7.0)	0.24	0.35
mean_UDexc_mean	-38 (-143 to 66)	0.47	0.71	75 (-83 to 232)	0.35	0.35
group_char		0.95	0.95		0.038	0.11
H1000's	_			_		
H2000's	-0.43 (-3.6 to 2.7)			-4.3 (-7.9 to -0.75)		
H3000's	-0.48 (-3.8 to 2.9)			-3.6 (-7.4 to 0.18)		
subj_char.sd(Intercept)	3.9 (NA to NA)			2.1 (NA to NA)		
Residual.sdObservation	7.3 (NA to NA)			11 (NA to NA)		

Changes in	mean_StanceDur	for Cluster:	10				
	Beta	Beta Div Theta			Theta Div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	-0.15 (-3.5 to 3.2)	0.93	>0.99	6.8 (2.0 to 12)	0.005	0.016	
mean_StanceDur	1.8 (-0.38 to 3.9)	0.11	0.32	-1.9 (-5.2 to 1.4)	0.26	0.26	
group_char		>0.99	>0.99		0.025	0.037	
H1000's	_			_			
H2000's	-0.10 (-3.2 to 3.0)			-4.6 (-8.3 to -0.97)			
H3000's	0.14 (-3.3 to 3.5)			-4.3 (-8.3 to -0.30)			
subj_char.sd(Intercept)	3.9 (NA to NA)			2.3 (NA to NA)			
Residual.sdObservation	7.2 (NA to NA)			11 (NA to NA)			

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

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

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

Changes in	mean_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)	-0.32 (-4.2 to 3.6)	0.87	0.99	6.9 (1.3 to 13)	0.015	0.040	
mean_GaitCycleDur	1.3 (-0.51 to 3.1)	0.16	0.48	-1.4 (-4.2 to 1.4)	0.33	0.33	
group_char		0.99	0.99		0.027	0.040	
H1000's	_			_			
H2000's	-0.09 (-3.2 to 3.1)			-4.6 (-8.3 to -0.95)			
H3000's	0.18 (-3.3 to 3.6)			-4.3 (-8.4 to -0.25)			
subj_char.sd(Intercept)	3.9 (NA to NA)			2.3 (NA to NA)			
Residual.sdObservation	7.2 (NA to NA)			11 (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)	2.8 (0.05 to 5.6)	0.046	0.14	2.9 (-0.79 to 6.6)	0.12	0.19
mean_PeakUpDownVel_mean	-3.4 (-11 to 4.6)	0.41	0.61	6.4 (-5.8 to 19)	0.30	0.30
group_char		0.96	0.96		0.031	0.094
H1000's	_			_		
H2000's	-0.38 (-3.5 to 2.7)			-4.4 (-8.0 to -0.83)		
H3000's	-0.37 (-3.7 to 3.0)			-3.8 (-7.7 to -0.01)		
subj_char.sd(Intercept)	3.9 (NA to NA)			2.1 (NA to NA)		
Residual.sdObservation	7.3 (NA to NA)			11 (NA to NA)		

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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)	9.0 (-1.5 to 19)	0.094	0.16	0.54 (-2.4 to 3.5)	0.72	0.96
mean_APexc_COV	-0.45 (-1.0 to 0.10)	0.11	0.16	0.00 (-0.16 to 0.15)	0.96	0.96
group_char		0.96	0.96		0.10	0.31
H1000's	_			_		
H2000's	1.3 (-8.5 to 11)			-1.2 (-4.0 to 1.6)		
H3000's	1.4 (-9.3 to 12)			1.8 (-1.2 to 4.9)		
subj_char.sd(Intercept)	8.7 (NA to NA)			2.6 (NA to NA)		
Residual.sdObservation	19 (NA to NA)			5.1 (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)	1.6 (-10 to 14)	0.79	0.94	3.0 (-0.26 to 6.2)	0.071	0.10	
mean_APexc_mean	6.7 (-183 to 196)	0.94	0.94	-47 (-98 to 4.8)	0.076	0.10	
group_char		0.76	0.94		0.10	0.10	
H1000's	_			_			
H2000's	-1.4 (-11 to 8.0)			-1.6 (-4.2 to 1.0)			
H3000's	-3.5 (-13 to 5.7)			1.3 (-1.3 to 3.8)			
subj_char.sd(Intercept)	8.7 (NA to NA)			2.5 (NA to NA)			
Residual.sd Observation	19 (NA to NA)			5.1 (NA to NA)			

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 $^{^{2}}$ 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)	2.5 (-8.6 to 14)	0.66	0.91	-1.3 (-4.3 to 1.8)	0.41	0.41	
mean_MLexc_COV	-0.04 (-0.65 to 0.58)	0.91	0.91	0.12 (-0.05 to 0.29)	0.17	0.26	
group_char		0.74	0.91		0.10	0.26	
H1000's	_			_			
H2000's	-1.5 (-11 to 7.8)			-1.1 (-3.7 to 1.6)			
H3000's	-3.6 (-12 to 5.4)			1.8 (-0.69 to 4.3)			
subj_char.sd(Intercept)	8.8 (NA to NA)			2.6 (NA to NA)			
Residual.sdObservation	19 (NA to NA)			5.1 (NA to NA)			

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

Changes in	mean_MLexc_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)	2.4 (-6.4 to 11)	0.59	0.89	1.1 (-1.3 to 3.6)	0.37	0.47	
mean_MLexc_mean	-6.2 (-94 to 81)	0.89	0.89	-8.9 (-33 to 15)	0.47	0.47	
group_char		0.76	0.89		0.081	0.24	
H1000's	_			_			
H2000's	-1.3 (-11 to 8.1)			-1.1 (-3.7 to 1.6)			
H3000's	-3.4 (-12 to 5.6)			1.9 (-0.61 to 4.5)			
subj_char.sd(Intercept)	8.7 (NA to NA)			2.6 (NA to NA)			
Residual.sd Observation	19 (NA to NA)			5.1 (NA to NA)			

² False discovery rate correction for multiple testing

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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)	0.60 (-11 to 12)	0.92	0.92	2.3 (-0.91 to 5.5)	0.16	0.19	
mean_StepDur	1.5 (-9.5 to 12)	0.79	0.92	-2.0 (-5.0 to 0.97)	0.19	0.19	
group_char		0.79	0.92		0.11	0.19	
H1000's				_			
H2000's	-1.2 (-11 to 8.2)			-1.5 (-4.2 to 1.1)			
H3000's	-3.2 (-12 to 6.0)			1.3 (-1.2 to 3.9)			
subj_char.sd(Intercept)	8.7 (NA to NA)			2.6 (NA to NA)			
Residual.sdObservation	19 (NA to NA)			5.1 (NA to NA)			

		T					
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)	2.3 (-6.6 to 11)	0.61	0.93	1.1 (-1.4 to 3.6)	0.38	0.49	
mean_UDexc_COV	-0.03 (-0.57 to 0.52)	0.93	0.93	-0.05 (-0.20 to 0.09)	0.49	0.49	
group_char		0.75	0.93		0.075	0.23	
H1000's	_			_			
H2000's	-1.4 (-11 to 7.9)			-1.2 (-3.8 to 1.4)			
H3000's	-3.5 (-12 to 5.5)			1.9 (-0.63 to 4.4)			
subj_char.sd(Intercept)	8.7 (NA to NA)			2.5 (NA to NA)			
Residual.sdObservation	19 (NA to NA)			5.1 (NA to NA)			

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Changes in	mean_UDexc_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)	3.3 (-6.5 to 13)	0.51	0.74	-0.09 (-2.8 to 2.6)	0.95	0.95	
mean_UDexc_mean	-55 (-371 to 261)	0.73	0.74	24 (-62 to 109)	0.59	0.89	
group_char		0.74	0.74		0.084	0.25	
H1000's	_			_			
H2000's	-1.4 (-11 to 7.8)			-1.2 (-3.8 to 1.4)			
H3000's	-3.5 (-12 to 5.4)			1.8 (-0.74 to 4.3)			
subj_char.sd(Intercept)	8.7 (NA to NA)			2.6 (NA to NA)			
Residual.sdObservation	19 (NA to NA)			5.1 (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)	0.93 (-9.4 to 11)	0.86	0.86	2.0 (-0.83 to 4.8)	0.17	0.19		
mean_StanceDur	0.84 (-5.8 to 7.5)	0.80	0.86	-1.2 (-3.0 to 0.58)	0.19	0.19		
group_char		0.78	0.86		0.10	0.19		
H1000's	_			_				
H2000's	-1.2 (-11 to 8.1)			-1.5 (-4.1 to 1.1)				
H3000's	-3.3 (-12 to 5.8)			1.4 (-1.1 to 4.0)				
subj_char.sd(Intercept)	8.7 (NA to NA)			2.6 (NA to NA)				
Residual.sdObservation	19 (NA to NA)			5.1 (NA to NA)				

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Changes in	mean_GaitCycleDur	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)	0.62 (-11 to 12)	0.92	0.92	2.3 (-0.90 to 5.5)	0.16	0.19
mean_GaitCycleDur	0.74 (-4.7 to 6.2)	0.79	0.92	-1.0 (-2.5 to 0.48)	0.19	0.19
group_char		0.79	0.92		0.11	0.19
H1000's	_			_		
H2000's	-1.2 (-11 to 8.2)			-1.5 (-4.2 to 1.1)		
H3000's	-3.2 (-12 to 6.0)			1.3 (-1.2 to 3.9)		
subj_char.sd(Intercept)	8.7 (NA to NA)			2.6 (NA to NA)		
Residual.sdObservation	19 (NA to NA)			5.1 (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)	1.9 (-6.5 to 10)	0.66	0.98	-0.33 (-2.6 to 2.0)	0.78	0.78
mean_PeakUpDownVel_mean	0.34 (-24 to 24)	0.98	0.98	3.4 (-3.2 to 9.9)	0.31	0.47
group_char		0.74	0.98		0.085	0.25
H1000's	_			_		
H2000's	-1.4 (-11 to 7.8)			-1.3 (-3.9 to 1.3)		
H3000's	-3.5 (-12 to 5.4)			1.7 (-0.79 to 4.2)		
subj_char.sd(Intercept)	8.7 (NA to NA)			2.5 (NA to NA)		
Residual.sd_Observation	19 (NA to NA)			5.1 (NA to NA)		

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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)	4.7 (-7.5 to 17)	0.45	0.68	-1.5 (-13 to 9.7)	0.79	0.82
mean_APexc_COV	-0.07 (-0.70 to 0.55)	0.82	0.82	0.14 (-0.40 to 0.69)	0.60	0.82
group_char		0.012	0.037		0.82	0.82
H1000's	_			_		
H2000's	-10 (-21 to 0.56)			-1.6 (-13 to 9.4)		
H3000's	5.6 (-5.0 to 16)			-3.5 (-14 to 7.2)		
subj_char.sd(Intercept)	6.6 (NA to NA)			11 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)		

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

Changes in	mean_APexc_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)	18 (3.8 to 32)	0.012	0.019	-2.4 (-15 to 9.8)	0.70	0.95
mean_APexc_mean	-265 (-497 to -34)	0.024	0.024	62 (-130 to 254)	0.53	0.95
group_char		0.007	0.019		0.95	0.95
H1000's	_			_		
H2000's	-14 (-24 to -3.2)			-0.15 (-11 to 11)		
H3000's	1.8 (-7.6 to 11)			-1.5 (-11 to 8.3)		
subj_char.sd(Intercept)	6.6 (NA to NA)			11 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)		

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)	1.4 (-11 to 14)	0.83	0.83	2.3 (-9.4 to 14)	0.70	0.90
mean_MLexc_COV	0.14 (-0.63 to 0.92)	0.72	0.83	-0.10 (-0.76 to 0.56)	0.77	0.90
group_char		0.014	0.042		0.90	0.90
H1000's	_			_		
H2000's	-10 (-20 to -0.05)			-1.1 (-12 to 9.7)		
H3000's	5.0 (-4.1 to 14)			-2.2 (-12 to 7.4)		
subj_char.sd(Intercept)	6.5 (NA to NA)			11 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)		

Changes in	mean_MLexc_mean	for Cluster:	12				
	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	0.020	2.9 (-6.8 to 13)	0.56	0.86	
mean_MLexc_mean	-122 (-224 to -19)	0.020	0.020	-25 (-112 to 62)	0.57	0.86	
group_char		0.013	0.020		0.91	0.91	
H1000's	_			_			
H2000's	-9.7 (-20 to 0.55)			-0.72 (-11 to 9.9)			
H3000's	5.8 (-3.4 to 15)			-2.0 (-12 to 7.5)			
subj_char.sd(Intercept)	7.2 (NA to NA)			11 (NA to NA)			
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)			

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

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 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)	16 (2.3 to 31)	0.023	0.034	1.0 (-11 to 13)	0.87	0.98
mean_StepDur	-14 (-28 to -0.32)	0.045	0.045	-0.16 (-11 to 11)	0.98	0.98
group_char		0.011	0.033		0.90	0.98
H1000's	_			_		
H2000's	-13 (-23 to -2.5)			-0.91 (-12 to 9.9)		
H3000's	1.9 (-7.6 to 11)			-2.2 (-12 to 7.6)		
subj_char.sd(Intercept)	6.6 (NA to NA)			11 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (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)	13 (2.7 to 23)	0.014	0.020	-0.12 (-9.6 to 9.3)	0.98	0.98
mean_UDexc_COV	-0.75 (-1.4 to -0.11)	0.022	0.022	0.08 (-0.45 to 0.61)	0.78	0.98
group_char		0.012	0.020		0.90	0.98
H1000's	_			_		
H2000's	-10 (-20 to 0.03)			-0.93 (-12 to 9.8)		
H3000's	5.4 (-3.7 to 14)			-2.3 (-12 to 7.4)		
subj_char.sd(Intercept)	6.7 (NA to NA)			11 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)		

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 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)	-7.7 (-18 to 2.8)	0.15	0.15	0.44 (-9.2 to 10)	0.93	0.93
mean_UDexc_mean	495 (127 to 863)	0.008	0.023	18 (-286 to 323)	0.91	0.93
group_char		0.016	0.023		0.90	0.93
H1000's	_			_		
H2000's	-11 (-22 to -1.2)			-0.92 (-12 to 9.8)		
H3000's	3.4 (-5.9 to 13)			-2.3 (-12 to 7.4)		
subj_char.sd(Intercept)	7.4 (NA to NA)			11 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)		

Changes in	mean StanceDur	for Cluster:	12				
2 10 8 10	_	Beta Div Theta			Theta Div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	13 (1.1 to 26)	0.032	0.049	1.1 (-9.6 to 12)	0.83	0.94	
mean_StanceDur	-8.0 (-16 to 0.47)	0.064	0.064	-0.24 (-7.0 to 6.5)	0.94	0.94	
group_char		0.012	0.035		0.90	0.94	
H1000's	_			_			
H2000's	-12 (-23 to -2.1)			-0.94 (-12 to 9.8)			
H3000's	2.6 (-6.9 to 12)			-2.3 (-12 to 7.5)			
subj_char.sd(Intercept)	6.7 (NA to NA)			11 (NA to NA)			
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)			

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² False discovery rate correction for multiple testing

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Changes in	mean_GaitCycleDur	for Cluster:	12			
		iv Theta		Theta	Div Beta	
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	17 (2.4 to 31)	0.022	0.033	1.0 (-11 to 13)	0.87	0.98
mean_GaitCycleDur	-7.2 (-14 to -0.21)	0.044	0.044	-0.08 (-5.7 to 5.6)	0.98	0.98
group_char		0.011	0.033		0.90	0.98
H1000's	_			_		
H2000's	-13 (-23 to -2.5)			-0.91 (-12 to 9.9)		
H3000's	1.9 (-7.6 to 11)			-2.3 (-12 to 7.6)		
subj_char.sd(Intercept)	6.6 (NA to NA)			11 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)		

Changes in	mean_PeakUpDownVel_mean	for Cluster:	12			
	Beta Div T	Theta Div Beta				
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	-6.8 (-16 to 2.0)	0.13	0.13	0.89 (-7.6 to 9.4)	0.84	0.99
mean_PeakUpDownVel_mean	45 (18 to 72)	0.001	0.004	-0.20 (-23 to 22)	0.99	0.99
group_char		0.012	0.018		0.90	0.99
H1000's	_			_		
H2000's	-12 (-22 to -1.9)			-0.88 (-12 to 9.8)		
H3000's	2.9 (-6.2 to 12)			-2.2 (-12 to 7.4)		
subj_char.sd(Intercept)	6.7 (NA to NA)			11 (NA to NA)		
Residual.sdObservation	23 (NA to NA)			18 (NA to NA)		

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 False discovery rate correction for multiple testing

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Changes in	mean_APexc_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)	-5.2 (-19 to 8.5)	0.46	0.54	2.7 (-5.0 to 10)	0.49	0.51
mean_APexc_COV	0.23 (-0.51 to 0.98)	0.54	0.54	-0.14 (-0.56 to 0.28)	0.51	0.51
group_char		0.49	0.54		0.31	0.51
H1000's	_					
H2000's	-7.9 (-21 to 5.3)			-0.76 (-8.1 to 6.6)		
H3000's	-2.0 (-14 to 10)			4.5 (-2.4 to 11)		
subj_char.sd(Intercept)	7.1 (NA to NA)			3.6 (NA to NA)		
Residual.sdObservation	25 (NA to NA)			15 (NA to NA)		

Changes in	mean_APexc_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)	-7.5 (-22 to 7.6)	0.33	0.52	-1.1 (-9.6 to 7.5)	0.81	0.81	
mean_APexc_mean	112 (-142 to 365)	0.39	0.52	27 (-118 to 172)	0.71	0.81	
group_char		0.52	0.52		0.36	0.81	
H1000's	_			_			
H2000's	-5.7 (-18 to 6.8)			-1.4 (-8.4 to 5.6)			
H3000's	2.0 (-8.5 to 13)			3.5 (-2.4 to 9.4)			
subj_char.sd(Intercept)	7.1 (NA to NA)			3.6 (NA to NA)			
Residual.sd_Observation	25 (NA to NA)			15 (NA to NA)			

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

Changes in	mean_MLexc_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)	0.11 (-14 to 14)	0.99	0.99	-0.86 (-8.7 to 7.0)	0.83	0.83
mean_MLexc_COV	-0.10 (-0.93 to 0.73)	0.81	0.99	0.08 (-0.38 to 0.55)	0.73	0.83
group_char		0.54	0.99		0.37	0.83
H1000's	_			_		
H2000's	-6.6 (-19 to 5.9)			-1.5 (-8.4 to 5.4)		
H3000's	0.17 (-9.7 to 10)			3.2 (-2.3 to 8.7)		
subj_char.sd(Intercept)	7.3 (NA to NA)			3.6 (NA to NA)		
Residual.sdObservation	25 (NA to NA)			15 (NA to NA)		

Changes in	mean_MLexc_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)	-7.0 (-18 to 4.1)	0.22	0.36	-0.78 (-7.1 to 5.5)	0.81	0.81
mean_MLexc_mean	70 (-47 to 188)	0.24	0.36	15 (-52 to 82)	0.67	0.81
group_char		0.49	0.49		0.38	0.81
H1000's	_			_		
H2000's	-7.2 (-19 to 5.1)			-1.7 (-8.6 to 5.2)		
H3000's	-0.16 (-9.8 to 9.5)			3.0 (-2.4 to 8.5)		
subj_char.sd(Intercept)	6.6 (NA to NA)			3.5 (NA to NA)		
Residual.sd Observation	25 (NA to NA)			15 (NA to NA)		

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

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 False discovery rate correction for multiple testing

Changes in	mean_StepDur	for Cluster:	13			
		Div Theta		Theta Div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	-2.8 (-17 to 12)	0.71	0.84	-2.4 (-11 to 5.9)	0.57	0.57
mean_StepDur	1.5 (-13 to 16)	0.84	0.84	3.1 (-5.4 to 12)	0.47	0.57
group_char		0.55	0.84		0.31	0.57
H1000's	_			_		
H2000's	-6.3 (-19 to 6.2)			-1.2 (-8.1 to 5.8)		
H3000's	0.62 (-9.7 to 11)			3.8 (-1.9 to 9.6)		
subj_char.sd(Intercept)	7.0 (NA to NA)			3.5 (NA to NA)		
Residual.sdObservation	25 (NA to NA)			15 (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)	-1.4 (-12 to 9.5)	0.80	>0.99	-0.71 (-6.9 to 5.5)	0.82	0.82
mean_UDexc_COV	0.00 (-0.69 to 0.69)	>0.99	>0.99	0.08 (-0.31 to 0.48)	0.68	0.82
group_char		0.54	>0.99		0.39	0.82
H1000's	_			_		
H2000's	-6.5 (-19 to 5.9)			-1.7 (-8.6 to 5.2)		
H3000's	0.26 (-9.5 to 10)			3.0 (-2.5 to 8.5)		
subj_char.sd(Intercept)	7.1 (NA to NA)			3.5 (NA to NA)		
Residual.sdObservation	25 (NA to NA)			15 (NA to NA)		

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Confidence Interval
 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)	-1.3 (-13 to 11)	0.83	0.99	1.8 (-5.0 to 8.5)	0.61	0.65	
mean_UDexc_mean	-3.1 (-434 to 428)	0.99	0.99	-58 (-303 to 188)	0.65	0.65	
group_char		0.54	0.99		0.37	0.65	
H1000's	_			_			
H2000's	-6.5 (-19 to 5.9)			-1.6 (-8.5 to 5.3)			
H3000's	0.27 (-9.5 to 10)			3.2 (-2.3 to 8.6)			
subj_char.sd(Intercept)	7.1 (NA to NA)			3.5 (NA to NA)			
Residual.sdObservation	25 (NA to NA)			15 (NA to NA)			

Changes in	mean_StanceDur	for Cluster:	13				
	Beta	Beta Div Theta			Theta Div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	-2.3 (-15 to 10)	0.71	0.86	-2.0 (-9.1 to 5.0)	0.57	0.57	
mean_StanceDur	0.76 (-8.0 to 9.6)	0.86	0.86	2.0 (-3.0 to 7.0)	0.44	0.57	
group_char		0.54	0.86		0.31	0.57	
H1000's	_			_			
H2000's	-6.4 (-19 to 6.1)			-1.2 (-8.2 to 5.7)			
H3000's	0.51 (-9.6 to 11)			3.7 (-1.9 to 9.4)			
subj_char.sd(Intercept)	7.0 (NA to NA)			3.5 (NA to NA)			
Residual.sdObservation	25 (NA to NA)			15 (NA to NA)			

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² False discovery rate correction for multiple testing

Changes in	mean_GaitCycleDur	for Cluster:	13			
	Beta D	Beta Div Theta			Div Beta	
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	-2.8 (-17 to 12)	0.71	0.84	-2.4 (-11 to 5.9)	0.57	0.57
mean_GaitCycleDur	0.77 (-6.6 to 8.1)	0.84	0.84	1.6 (-2.7 to 5.8)	0.47	0.57
group_char		0.55	0.84		0.31	0.57
H1000's	_			_		
H2000's	-6.3 (-19 to 6.2)			-1.2 (-8.1 to 5.8)		
H3000's	0.63 (-9.7 to 11)			3.8 (-1.9 to 9.6)		
subj_char.sd(Intercept)	7.0 (NA to NA)			3.5 (NA to NA)		
Residual.sdObservation	25 (NA to NA)			15 (NA to NA)		

Changes in	mean_PeakUpDownVel_mean	for Cluster:	13				
	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)	-1.1 (-11 to 8.9)	0.83	0.93	2.3 (-3.3 to 7.9)	0.42	0.42	
mean_PeakUpDownVel_mean	-1.4 (-35 to 32)	0.93	0.93	-8.2 (-27 to 11)	0.40	0.42	
group_char		0.54	0.93		0.33	0.42	
H1000's	_			_			
H2000's	-6.5 (-19 to 5.9)			-1.4 (-8.3 to 5.4)			
H3000's	0.32 (-9.5 to 10)			3.5 (-2.0 to 8.9)			
subj_char.sd(Intercept)	7.1 (NA to NA)			3.4 (NA to NA)			
Residual.sdObservation	25 (NA to NA)			15 (NA to NA)			

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

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² False discovery rate correction for multiple testing

Changes in	mean_APexc_COV	for Cluster:	14				
	Beta D	Beta Div Theta			Theta Div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	37 (7.4 to 67)	0.014	0.022	0.01 (-0.70 to 0.72)	0.98	0.98	
mean_APexc_COV	-2.1 (-3.7 to -0.45)	0.012	0.022	0.01 (-0.03 to 0.05)	0.55	0.82	
group_char		0.22	0.22		0.49	0.82	
H1000's	_			_			
H2000's	-1.9 (-26 to 23)			-0.12 (-0.74 to 0.51)			
H3000's	18 (-7.8 to 45)			0.26 (-0.40 to 0.92)			
subj_char.sd(Intercept)	0.00 (NA to NA)			0.54 (NA to NA)			
Residual.sdObservation	75 (NA to NA)			1.6 (NA to NA)			

Changes in	mean_APexc_mean	for Cluster:	14			
	Beta Div Theta			Theta Div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	33 (-1.8 to 68)	0.063	0.11	1.1 (0.26 to 1.9)	0.009	0.025
mean_APexc_mean	-536 (-1,117 to 45)	0.071	0.11	-16 (-29 to -2.9)	0.016	0.025
group_char		0.27	0.27		0.56	0.56
H1000's	_			_		
H2000's	-19 (-43 to 4.3)			-0.21 (-0.81 to 0.39)		
H3000's	-7.9 (-32 to 16)			0.13 (-0.47 to 0.73)		
subj_char.sd(Intercept)	0.00 (NA to NA)			0.55 (NA to NA)		
Residual.sdObservation	76 (NA to NA)			1.6 (NA to NA)		

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 False discovery rate correction for multiple testing

Changes in	mean_MLexc_COV	for Cluster:	14				
		Beta Div Theta			Theta Div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	10 (-20 to 40)	0.52	0.65	-0.29 (-1.0 to 0.42)	0.42	0.42	
mean_MLexc_COV	-0.42 (-2.2 to 1.4)	0.65	0.65	0.03 (-0.01 to 0.07)	0.11	0.34	
group_char		0.41	0.65		0.34	0.42	
H1000's	_			_			
H2000's	-14 (-37 to 8.7)			-0.02 (-0.60 to 0.57)			
H3000's	-0.04 (-22 to 22)			0.38 (-0.19 to 0.94)			
subj_char.sd(Intercept)	0.00 (NA to NA)			0.53 (NA to NA)			
Residual.sdObservation	76 (NA to NA)			1.6 (NA to NA)			

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

Changes in	mean_MLexc_mean	for Cluster:	14			
	Beta Div Theta			Theta Div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	32 (5.4 to 58)	0.018	0.027	0.76 (0.13 to 1.4)	0.018	0.039
mean_MLexc_mean	-347 (-620 to -73)	0.013	0.027	-7.0 (-13 to -0.83)	0.026	0.039
group_char		0.55	0.55		0.38	0.38
H1000's	_			_		
H2000's	-11 (-34 to 12)			0.00 (-0.60 to 0.60)		
H3000's	0.57 (-21 to 23)			0.37 (-0.21 to 0.95)		
subj_char.sd(Intercept)	0.00 (NA to NA)			0.59 (NA to NA)		
Residual.sdObservation	75 (NA to NA)			1.6 (NA to NA)		

² False discovery rate correction for multiple testing

CI = Confidence Interval
 False discovery rate correction for multiple testing

Changes in	mean_StepDur	for Cluster:	14				
	Beta Div Theta			Theta Div Beta			
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	8.4 (-28 to 44)	0.65	0.79	0.91 (0.11 to 1.7)	0.027	0.074	
mean_StepDur	-5.0 (-41 to 31)	0.79	0.79	-0.78 (-1.6 to 0.00)	0.049	0.074	
group_char		0.42	0.79		0.53	0.53	
H1000's	_			_			
H2000's	-15 (-38 to 9.0)			-0.17 (-0.77 to 0.43)			
H3000's	-1.0 (-25 to 23)			0.19 (-0.41 to 0.78)			
subj_char.sd(Intercept)	0.00 (NA to NA)			0.55 (NA to NA)			
Residual.sdObservation	76 (NA to NA)			1.6 (NA to NA)			

Changes in	mean_UDexc_COV	for Cluster:	14				
	Beta Div Theta			Theta Div Beta			
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	26 (0.92 to 51)	0.042	0.063	0.47 (-0.12 to 1.1)	0.12	0.31	
mean_UDexc_COV	-1.8 (-3.4 to -0.13)	0.034	0.063	-0.02 (-0.06 to 0.01)	0.24	0.31	
group_char		0.47	0.47		0.31	0.31	
H1000's	_			_			
H2000's	-12 (-35 to 11)			-0.03 (-0.61 to 0.56)			
H3000's	2.4 (-20 to 25)			0.39 (-0.18 to 0.96)			
subj_char.sd(Intercept)	0.00 (NA to NA)			0.54 (NA to NA)			
Residual.sdObservation	76 (NA to NA)			1.6 (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_UDexc_mean	for Cluster:	14			
	Beta Div Theta			Theta Div Beta		
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	13 (-16 to 42)	0.37	0.47	-0.30 (-0.96 to 0.36)	0.37	0.37
mean_UDexc_mean	-378 (-1,396 to 640)	0.47	0.47	20 (-1.8 to 43)	0.071	0.21
group_char		0.42	0.47		0.33	0.37
H1000's	_			_		
H2000's	-14 (-37 to 9.0)			-0.05 (-0.63 to 0.54)		
H3000's	0.00 (-22 to 22)			0.37 (-0.20 to 0.94)		
subj_char.sd(Intercept)	0.00 (NA to NA)			0.55 (NA to NA)		
Residual.sdObservation	76 (NA to NA)			1.6 (NA to NA)		

Changes in	mean_StanceDur	for Cluster:	14				
	Beta Div Theta			Theta Div Beta			
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	7.6 (-23 to 38)	0.63	0.79	0.82 (0.13 to 1.5)	0.020	0.052	
mean_StanceDur	-3.0 (-25 to 19)	0.79	0.79	-0.50 (-0.96 to -0.04)	0.034	0.052	
group_char		0.42	0.79		0.51	0.51	
H1000's	_			_			
H2000's	-14 (-38 to 8.9)			-0.16 (-0.75 to 0.43)			
H3000's	-0.84 (-24 to 22)			0.21 (-0.38 to 0.79)			
subj_char.sd(Intercept)	0.00 (NA to NA)			0.55 (NA to NA)			
Residual.sdObservation	76 (NA to NA)			1.6 (NA to NA)			

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Changes in	mean_GaitCycleDur	for Cluster:	14				
	Beta Div Theta			Theta Div Beta			
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value	
(Intercept)	8.4 (-28 to 44)	0.65	0.79	0.90 (0.10 to 1.7)	0.027	0.075	
mean_GaitCycleDur	-2.5 (-21 to 16)	0.79	0.79	-0.39 (-0.78 to 0.00)	0.050	0.075	
group_char		0.42	0.79		0.53	0.53	
H1000's	_			_			
H2000's	-15 (-38 to 9.0)			-0.17 (-0.77 to 0.43)			
H3000's	-1.0 (-25 to 23)			0.19 (-0.41 to 0.78)			
subj_char.sd(Intercept)	0.00 (NA to NA)			0.55 (NA to NA)			
Residual.sdObservation	76 (NA to NA)			1.6 (NA to NA)			

Changes in	mean_PeakUpDownVel_mean	for Cluster:	14			
	Beta Div T	Theta Div Beta				
Characteristic	Beta (95% CI)	p-value	q-value	Beta (95% CI)	p-value	q-value
(Intercept)	9.4 (-14 to 33)	0.44	0.57	-0.26 (-0.81 to 0.29)	0.35	0.39
mean_PeakUpDownVel_mean	-23 (-102 to 56)	0.57	0.57	1.9 (0.23 to 3.6)	0.026	0.077
group_char		0.43	0.57		0.39	0.39
H1000's	_			_		
H2000's	-13 (-36 to 9.5)			-0.09 (-0.67 to 0.50)		
H3000's	0.62 (-22 to 23)			0.32 (-0.25 to 0.89)		
subj_char.sd(Intercept)	0.00 (NA to NA)			0.55 (NA to NA)		
Residual.sd_Observation	76 (NA to NA)			1.6 (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