The Life of Eli

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Contents

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This document can be found at https://github.com/darwinanddavis/Eli

The Life of Eli

Overview

Activity data for Eli for his first year, including time spent feeding, sleeping, in leisure and values for growth and other behavoural traits.

TO DO
* ~~separate activity states~~
* separate hour and mins, then convert time to hours

Load and clean data

```
setwd(params$dir) # set wd
list.files()
```

```
[1] "april.csv" "eli.pdf"   "eli.R"     "eli.Rmd"   "Eli.Rproj" "eli.tex"   "feb.csv"   "march.csv"
[9] "may.csv"
```

```
d <- "may" # choose month or total period

data <- read.csv(paste0(d,".csv"),header=T,sep=",", stringsAsFactors=FALSE)
colnames(data) <- c("Activity","Trait","Start","Finish","Value")
data[c("Activity", "Trait")] <- sapply(data[c("Activity", "Trait")],as.character)
head(data)
```

```
# A tibble: 6 x 5
  Activity Trait        Start                Finish               Value
* <chr>    <chr>        <chr>                <chr>                <chr>
1 Growth   Head         16-Feb.-2018 8:06 pm  16-Feb.-2018 8:06 pm  35cm
2 Growth   Height       16-Feb.-2018 8:06 pm  16-Feb.-2018 8:06 pm  53cm
3 Growth   Weight       16-Feb.-2018 11:59 pm 16-Feb.-2018 11:59 pm 3.61kg
4 Feeding  Right Breast 18-Feb.-2018 1:25 am  18-Feb.-2018 1:35 am  ""
5 Feeding  Left Breast  18-Feb.-2018 1:35 am  18-Feb.-2018 1:44 am  ""
6 Feeding  Right Breast 18-Feb.-2018 3:24 am  18-Feb.-2018 3:45 am  ""
```

Subset activities

```
unique(data$Activity)
```

```
[1] "Growth"    "Feeding"   "Sleep"     "Diapering" "Health"    "Leisure"   "Pumping"
```

```
grow <- subset(data,subset=Activity=="Growth");grow
```

```
# A tibble: 16 x 5
   Activity Trait   Start                Finish               Value
 * <chr>    <chr>   <chr>                <chr>                <chr>
 1 Growth   Head    16-Feb.-2018 8:06 pm  16-Feb.-2018 8:06 pm  35cm
 2 Growth   Height  16-Feb.-2018 8:06 pm  16-Feb.-2018 8:06 pm  53cm
 3 Growth   Weight  16-Feb.-2018 11:59 pm 16-Feb.-2018 11:59 pm 3.61kg
 4 Growth   Weight  27-Feb.-2018 12:00 pm 27-Feb.-2018 12:00 pm 3.67kg
 5 Growth   Weight  07-Mar.-2018 1:08 pm  07-Mar.-2018 1:08 pm  4.01kg
 6 Growth   Height  07-Mar.-2018 1:08 pm  07-Mar.-2018 1:08 pm  55cm
 7 Growth   Head    07-Mar.-2018 1:08 pm  07-Mar.-2018 1:08 pm  37.5cm
```

```
 8 Growth    Weight 21-Mar.-2018 10:45 am 21-Mar.-2018 10:45 am 4.695kg
 9 Growth    Weight 28-Mar.-2018 6:09 pm  28-Mar.-2018 6:09 pm  5.1kg
10 Growth    Weight 11-Apr.-2018 11:12 am 11-Apr.-2018 11:12 am 5.5kg
11 Growth    Weight 16-Apr.-2018 2:28 pm  16-Apr.-2018 2:28 pm  5.5kg, @ babybunting
12 Growth    Weight 24-Apr.-2018 10:14 pm 24-Apr.-2018 10:14 pm 5.73kg
13 Growth    Height 24-Apr.-2018 10:15 pm 24-Apr.-2018 10:15 pm 61.5cm
14 Growth    Head   24-Apr.-2018 10:16 pm 24-Apr.-2018 10:16 pm 40cm
15 Growth    Weight 10/05/18 12:14        10/05/18 12:14        6kg
16 Growth    Height 23/05/18 20:20        23/05/18 20:20        63cm
```

```r
feed <- subset(data,subset=Activity=="Feeding");head(feed)
```

```
# A tibble: 6 x 5
  Activity Trait        Start               Finish              Value
* <chr>    <chr>        <chr>               <chr>               <chr>
1 Feeding  Right Breast 18-Feb.-2018 1:25 am  18-Feb.-2018 1:35 am  ""
2 Feeding  Left Breast  18-Feb.-2018 1:35 am  18-Feb.-2018 1:44 am  ""
3 Feeding  Right Breast 18-Feb.-2018 3:24 am  18-Feb.-2018 3:45 am  ""
4 Feeding  Left Breast  18-Feb.-2018 7:39 am  18-Feb.-2018 8:05 am  ""
5 Feeding  Right Breast 18-Feb.-2018 10:12 am 18-Feb.-2018 10:45 am ""
6 Feeding  Left Breast  18-Feb.-2018 10:48 am 18-Feb.-2018 11:35 am ""
```

```r
sleep <- subset(data,subset=Activity=="Sleep");sleep
```

```
# A tibble: 645 x 5
   Activity Trait Start               Finish              Value
 * <chr>    <chr> <chr>               <chr>               <chr>
 1 Sleep    ""    18-Feb.-2018 8:53 am  18-Feb.-2018 9:41 am  ""
 2 Sleep    ""    18-Feb.-2018 11:32 am 18-Feb.-2018 3:16 pm  ""
 3 Sleep    ""    18-Feb.-2018 10:24 pm 18-Feb.-2018 10:52 pm ""
 4 Sleep    ""    19-Feb.-2018 1:40 am  19-Feb.-2018 3:00 am  ""
 5 Sleep    ""    19-Feb.-2018 3:36 am  19-Feb.-2018 3:38 am  ""
 6 Sleep    ""    19-Feb.-2018 5:15 pm  19-Feb.-2018 6:05 pm  ""
 7 Sleep    ""    19-Feb.-2018 8:30 pm  19-Feb.-2018 10:54 pm ""
 8 Sleep    ""    20-Feb.-2018 1:07 am  20-Feb.-2018 2:08 am  ""
 9 Sleep    ""    20-Feb.-2018 3:09 am  20-Feb.-2018 3:45 am  ""
10 Sleep    ""    20-Feb.-2018 4:43 am  20-Feb.-2018 5:40 am  ""
# ... with 635 more rows
```

```r
diaper <- subset(data,subset=Activity=="Diapering");diaper
```

```
# A tibble: 1,080 x 5
   Activity  Trait     Start               Finish              Value
 * <chr>     <chr>     <chr>               <chr>               <chr>
 1 Diapering Pee & Poo 18-Feb.-2018 10:01 am 18-Feb.-2018 10:01 am olive
 2 Diapering Poo       18-Feb.-2018 6:42 pm  18-Feb.-2018 6:42 pm  licorice, shiny
 3 Diapering Poo       18-Feb.-2018 10:00 pm 18-Feb.-2018 10:00 pm small like earlier, olive green
 4 Diapering Pee       20-Feb.-2018 2:46 am  20-Feb.-2018 2:46 am  ""
 5 Diapering Poo       20-Feb.-2018 2:47 am  20-Feb.-2018 2:47 am  Fresh. Olive/brown
 6 Diapering Pee & Poo 20-Feb.-2018 3:54 am  20-Feb.-2018 3:54 am  ""
 7 Diapering Pee       20-Feb.-2018 11:20 am 20-Feb.-2018 11:20 am ""
 8 Diapering Pee       20-Feb.-2018 4:29 pm  20-Feb.-2018 4:29 pm  ""
 9 Diapering Poo       20-Feb.-2018 4:31 pm  20-Feb.-2018 4:31 pm  ""
10 Diapering Pee       20-Feb.-2018 7:09 pm  20-Feb.-2018 7:09 pm  ""
# ... with 1,070 more rows
```

```r
leisure <- subset(data,subset=Activity=="Leisure");leisure
```

```
# A tibble: 84 x 5
   Activity Trait      Start                 Finish                Value
 * <chr>    <chr>      <chr>                 <chr>                 <chr>
 1 Leisure  Bath time  13-Mar.-2018 10:15 pm 13-Mar.-2018 10:30 pm ""
 2 Leisure  Bath time  15-Mar.-2018 9:15 pm  15-Mar.-2018 9:30 pm  ""
 3 Leisure  Tummy time 17-Mar.-2018 8:00 pm  17-Mar.-2018 8:02 pm  ""
 4 Leisure  Bath time  17-Mar.-2018 9:10 pm  17-Mar.-2018 9:30 pm  ""
 5 Leisure  Tummy time 18-Mar.-2018 6:40 pm  18-Mar.-2018 6:45 pm  ""
 6 Leisure  Tummy time 20-Mar.-2018 12:09 am 20-Mar.-2018 12:14 am ""
 7 Leisure  Tummy time 21-Mar.-2018 10:52 pm 21-Mar.-2018 10:54 pm ""
 8 Leisure  Bath time  22-Mar.-2018 11:05 pm 22-Mar.-2018 11:29 pm ""
 9 Leisure  Bath time  24-Mar.-2018 9:10 pm  24-Mar.-2018 9:34 pm  ""
10 Leisure  Tummy time 24-Mar.-2018 9:37 pm  24-Mar.-2018 9:40 pm  ""
# ... with 74 more rows
```

Subset traits

```r
# activity states with traits: grow,feed,diaper,leisure

# grow

# feed
breast_l <- subset(feed,subset=Trait=="Left Breast");breast_l
```

```
# A tibble: 628 x 5
   Activity Trait       Start                 Finish                Value
 * <chr>    <chr>       <chr>                 <chr>                 <chr>
 1 Feeding  Left Breast 18-Feb.-2018 1:35 am  18-Feb.-2018 1:44 am  ""
 2 Feeding  Left Breast 18-Feb.-2018 7:39 am  18-Feb.-2018 8:05 am  ""
 3 Feeding  Left Breast 18-Feb.-2018 10:48 am 18-Feb.-2018 11:35 am ""
 4 Feeding  Left Breast 18-Feb.-2018 4:17 pm  18-Feb.-2018 4:17 pm  ""
 5 Feeding  Left Breast 18-Feb.-2018 4:20 pm  18-Feb.-2018 4:20 pm  ""
 6 Feeding  Left Breast 18-Feb.-2018 5:32 pm  18-Feb.-2018 5:40 pm  ""
 7 Feeding  Left Breast 18-Feb.-2018 9:04 pm  18-Feb.-2018 9:23 pm  ""
 8 Feeding  Left Breast 18-Feb.-2018 10:56 pm 18-Feb.-2018 11:23 pm ""
 9 Feeding  Left Breast 19-Feb.-2018 3:00 am  19-Feb.-2018 3:31 am  ""
10 Feeding  Left Breast 19-Feb.-2018 6:02 am  19-Feb.-2018 6:09 am  windy  tummy
# ... with 618 more rows
```

```r
breast_r <- subset(feed,subset=Trait=="Right Breast");breast_r
```

```
# A tibble: 608 x 5
   Activity Trait        Start                 Finish                Value
 * <chr>    <chr>        <chr>                 <chr>                 <chr>
 1 Feeding  Right Breast 18-Feb.-2018 1:25 am  18-Feb.-2018 1:35 am  ""
 2 Feeding  Right Breast 18-Feb.-2018 3:24 am  18-Feb.-2018 3:45 am  ""
 3 Feeding  Right Breast 18-Feb.-2018 10:12 am 18-Feb.-2018 10:45 am ""
 4 Feeding  Right Breast 18-Feb.-2018 3:23 pm  18-Feb.-2018 3:56 pm  ""
 5 Feeding  Right Breast 18-Feb.-2018 6:40 pm  18-Feb.-2018 6:52 pm  ""
 6 Feeding  Right Breast 18-Feb.-2018 7:02 pm  18-Feb.-2018 7:30 pm  ""
 7 Feeding  Right Breast 18-Feb.-2018 10:00 pm 18-Feb.-2018 10:08 pm ""
 8 Feeding  Right Breast 18-Feb.-2018 11:37 pm 18-Feb.-2018 11:48 pm ""
```

```
 9 Feeding  Right Breast 19-Feb.-2018 12:02 am 19-Feb.-2018 12:23 am ""
10 Feeding  Right Breast 19-Feb.-2018 3:54 am  19-Feb.-2018 4:19 am  ""
# ... with 598 more rows
#
```