microt\_lmer

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## Read participant data

participant\_data <- read\_csv("participant\_data.csv")

## Rows: 3030 Columns: 6

## -- Column specification --------------------------------------------------------  
## Delimiter: ","  
## dbl (6): participant\_id, day, prompts, answers, sleep\_hours, ema

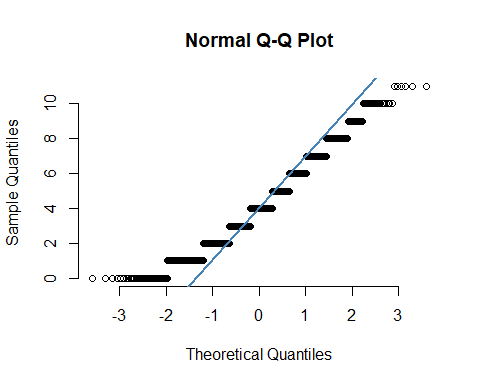
##   
## i Use `spec()` to retrieve the full column specification for this data.  
## i Specify the column types or set `show\_col\_types = FALSE` to quiet this message.

# Linear mixed effects model  
  
fit <- lmer(answers ~ prompts\*ema + sleep\_hours + (1 | participant\_id), participant\_data)  
  
summary(fit)

## Linear mixed model fit by REML ['lmerMod']  
## Formula: answers ~ prompts \* ema + sleep\_hours + (1 | participant\_id)  
## Data: participant\_data  
##   
## REML criterion at convergence: 10730.5  
##   
## Scaled residuals:   
## Min 1Q Median 3Q Max   
## -3.4073 -0.6649 0.0051 0.6408 3.7962   
##   
## Random effects:  
## Groups Name Variance Std.Dev.  
## participant\_id (Intercept) 3.125 1.768   
## Residual 1.758 1.326   
## Number of obs: 3030, groups: participant\_id, 101  
##   
## Fixed effects:  
## Estimate Std. Error t value  
## (Intercept) 3.80434 0.31175 12.203  
## prompts 0.03096 0.02095 1.478  
## ema 0.54468 0.29572 1.842  
## sleep\_hours -0.01312 0.01380 -0.950  
## prompts:ema -0.04145 0.02621 -1.581  
##   
## Correlation of Fixed Effects:  
## (Intr) prmpts ema slp\_hr  
## prompts -0.746   
## ema -0.473 0.616   
## sleep\_hours -0.331 -0.005 0.001   
## prompts:ema 0.464 -0.623 -0.986 0.003

## Including Plots

You can also embed plots, for example:



res = resid(fit)  
plot(participant\_data$answers, res, ylab="Residuals", xlab="Prompts answered", main="EMA and uEMA prompts answered")   
abline(0, 0)

