ANOVAs pro Gui

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# carregando os pacotes ---------------------------------------------------  
  
lista\_de\_pacotes <- c("tidyverse",  
 "readxl",  
 "here",  
 "lme4",  
 "janitor",  
 "ggbeeswarm",  
 "broom",  
 "tufte",  
 "ggthemes",  
 "ggpol")  
  
  
pacotes\_novos <-  
 lista\_de\_pacotes[!(lista\_de\_pacotes %in% installed.packages()[, "Package"])]  
if (length(pacotes\_novos))  
 install.packages(pacotes\_novos)  
  
  
library(tidyverse)  
library(readxl)  
library(here)  
library(lme4)  
library(janitor)  
library(ggbeeswarm)  
library(broom)  
library(ggthemes)  
library(ggpol)

# Carregando os dados

# ANOVA ui

## Código

ui\_m1 <- lm(ui ~ sp \* face, data = ui)  
  
anova(ui\_m1)  
  
ui\_m2 <- update(ui\_m1, . ~ . -sp:face)  
  
anova(ui\_m2) %>%   
 rename(`P value` = `Pr(>F)`)

## Tabela ANOVA ui

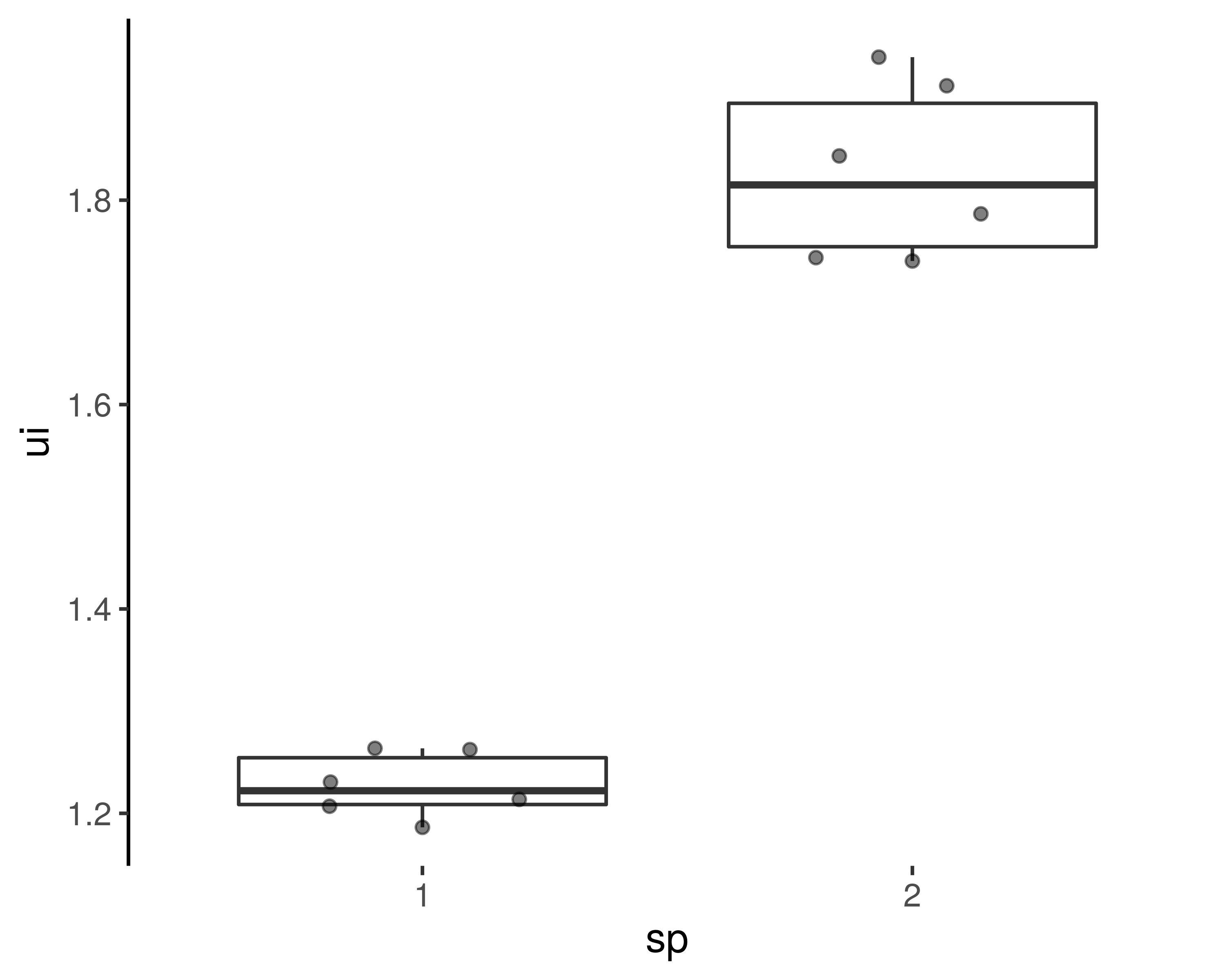
anova(ui\_m2) %>%   
 rename(`P value` = `Pr(>F)`) %>%   
 knitr::kable(digits = 3)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Df | Sum Sq | Mean Sq | F value | P value |
| sp | 1 | 1.082 | 1.082 | 238.52 | 0.000 |
| face | 1 | 0.000 | 0.000 | 0.07 | 0.798 |
| Residuals | 9 | 0.041 | 0.005 | NA | NA |

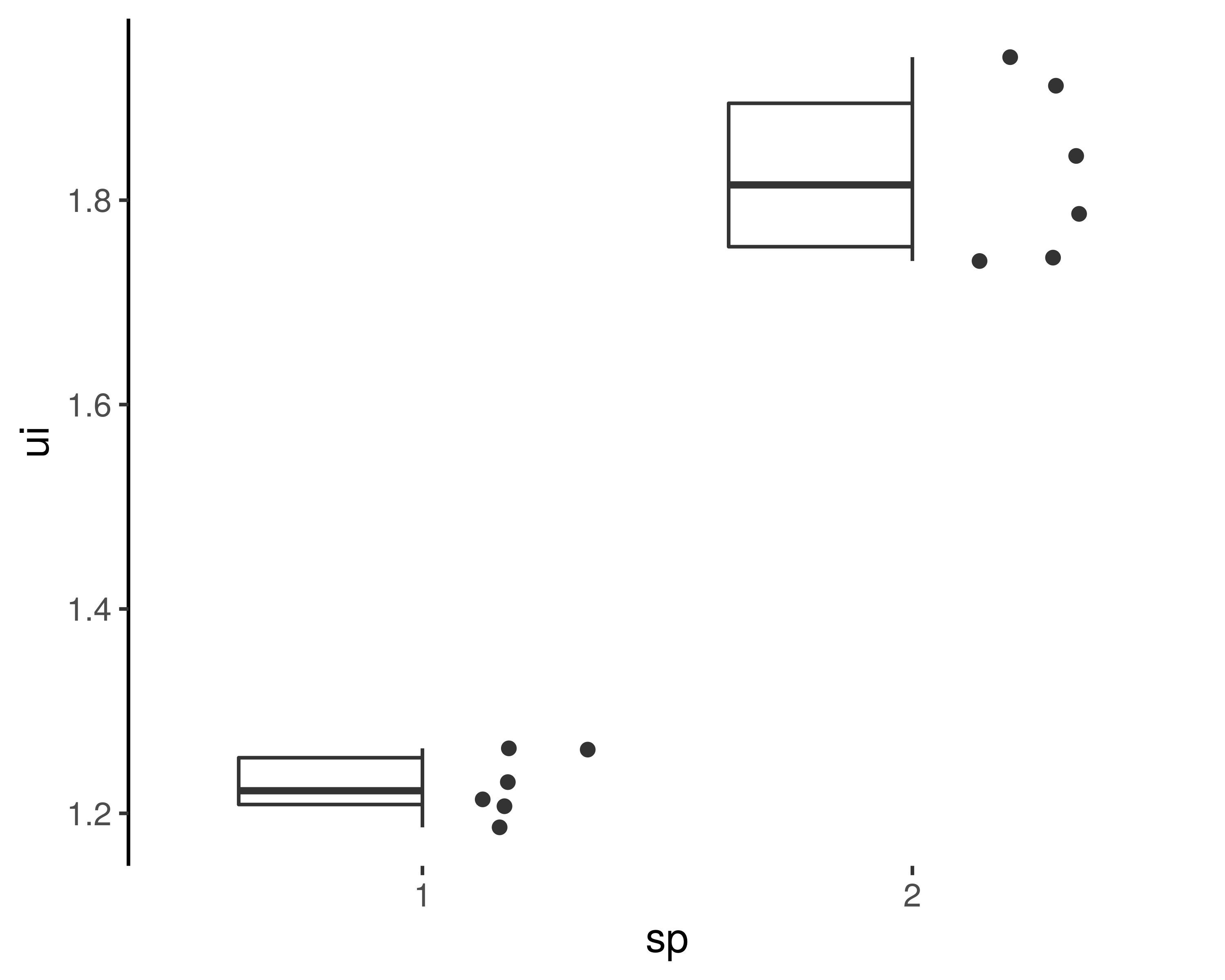
## Gráfico

Os dois gráficos abaixo tem as mesmas informções, escolha o que mais lhe agradar.

ui %>%   
 ggplot(aes(x = sp, y = ui)) +  
 geom\_boxplot() +  
 geom\_quasirandom(groupOnX = T,  
 alpha = .5) +  
 theme\_classic() +  
 theme(axis.line.x = element\_blank(),  
 text = element\_text(size = 12))



ui %>%   
 ggplot(aes(x = sp, y = ui)) +  
 geom\_boxjitter(jitter.height = 0) +  
 theme\_classic() +  
 theme(axis.line.x = element\_blank(),  
 text = element\_text(size = 12))



# ANOVA angle

## Código

angle\_m1 <- lm(angle ~ sp\*face, data = angle)  
  
anova(angle\_m1)  
  
angle\_m2 <- update(angle\_m1, . ~ . - sp:face)  
  
anova(angle\_m1, angle\_m2)  
  
anova(angle\_m2)

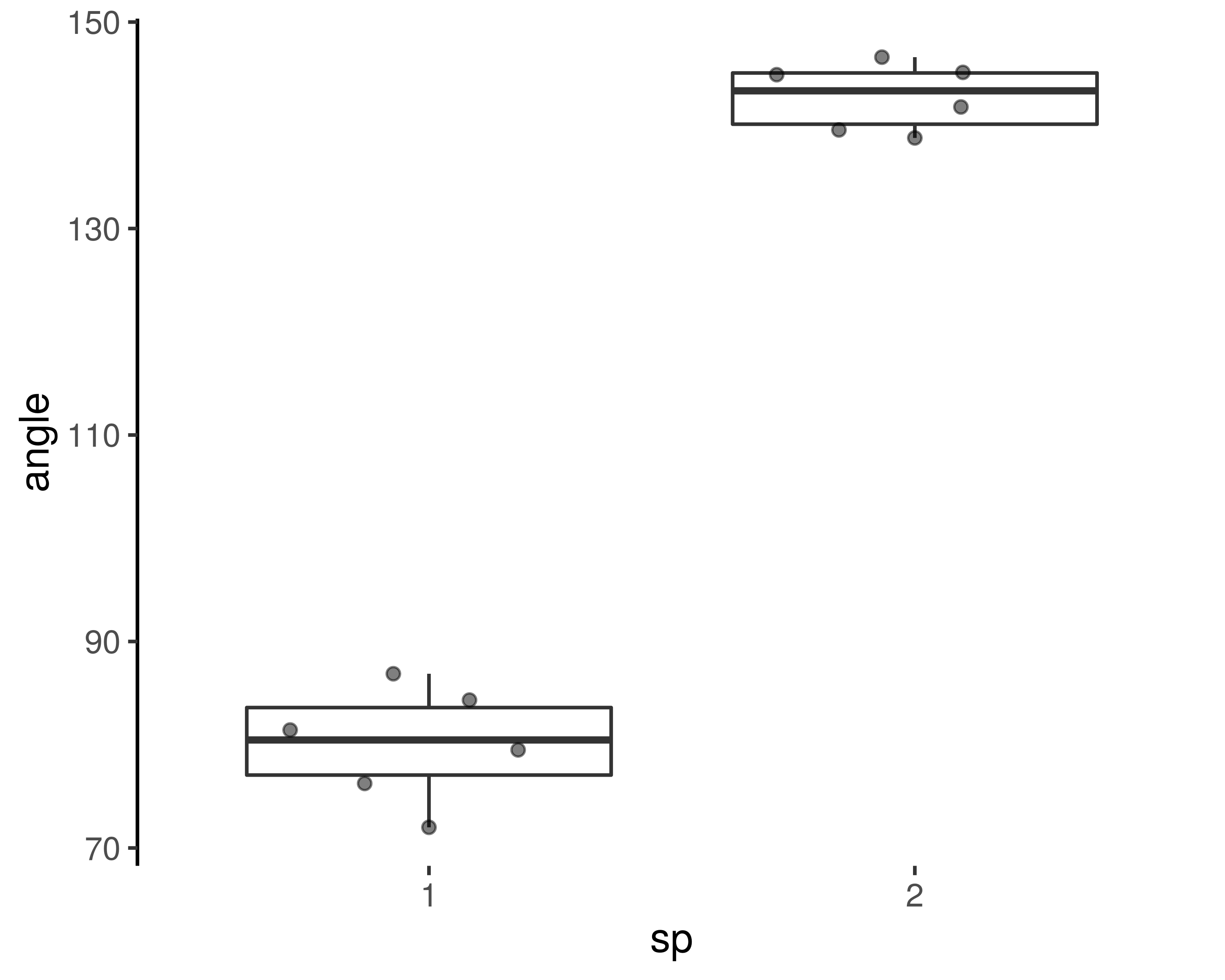
## Tabela

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Df | Sum Sq | Mean Sq | F value | P value |
| sp | 1 | 11803.277 | 11803.28 | 586.646 | 0.000 |
| face | 1 | 17.280 | 17.28 | 0.859 | 0.378 |
| Residuals | 9 | 181.079 | 20.12 | NA | NA |

## Gráfico

Os dois gráficos abaixo tem as mesmas informções, escolha o que mais lhe agradar.

angle %>%   
 ggplot(aes(x = sp, y = angle)) +  
 geom\_boxplot() +  
 geom\_quasirandom(groupOnX = T,  
 alpha = .5) +  
 theme\_classic() +  
 theme(axis.line.x = element\_blank(),  
 text = element\_text(size = 12))



angle %>%   
 ggplot(aes(x = sp, y = angle)) +  
 geom\_boxjitter(jitter.height = 0) +  
 theme\_classic() +  
 theme(axis.line.x = element\_blank(),  
 text = element\_text(size = 12))

