Plots - Relationship with Gamble Decisions

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24/03/2020

Result plots markdown

The RainCloudPlot function used here was created by Allen et al (2019).
DOI: 10.12688/wellcomeopenres.15191.1
It can be downloaded here (https://github.com/RainCloudPlots/RainCloudPlots (https://github.com/RainCloudPlots/RainCloudPlots))

Setup and data prep | RainCloudPlot | Logistic function (Sigmoid curve)

Data preparation & GLMM | Data Wrangling | Plotting

```
sigmoidplot <- function(df_plotdata, ppt_foodprob_data, ppt_curiprob_data){
  # plot the modelled curves (separately for curiosity condition and food   condition)
  sigplot<- ggplot(data=df_plotdata, aes(x=x_var)) +
    geom_line(aes(y=y_cmean, color='curiosity'), size=1, linetype="solid")  +
      geom_line(aes(y=y_fmean, color='food'), size=1, linetype="solid") +
    scale_color_manual(name="Category", values= c(food = "red", curiosity =   "blue"))

  # add and adjust graph elements
  axis.title.bold <- element_text(face="bold", size="12", color="black")
  axis.text.bold <- element_text(face="bold", size="12", color="black")

  sigplot <- sigplot + scale_x_continuous(name="Probability of Shock (%)",   breaks=c(-4,-2,0,2,4), labels=c("-4"="16.7%",
"-2"="33.3%", "0"="50%",   "2"="66.7%", "4"="83.3%")) +
    scale_y_continuous(name="Acceptance Rate", breaks=c(0, 0.5, 1)) +
    ggtitle("Relationship between Prospective Shock Probability and Gamble Decision") +
    theme_classic() +
    theme(axis.title=axis.title.bold, axis.text =axis.text.bold) +


  # also plot the raw data-points (from each participant at each probabilty level)   on the graph
    geom_point(data = ppt_foodprob_data, mapping = aes(x =   ShockProb, y = avg_ppt_choice), shape=1, position=position_jitt
er(h=0.03,w=0.18),   color="blue") +
    geom_point(data = ppt_curiprob_data, mapping = aes(x = ShockProb, y =   avg_ppt_choice), shape=1, position=position_jitt
er(h=0.03,w=0.18), color="red")

sigplot
}

g_sp <- sigmoidplot(df_plotdata, avg_ppt_foodprob, avg_ppt_curiprob)

g_sp
```