Analyses

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Packages

```
library(ggplot2)
library(jsonlite)
suppressPackageStartupMessages(library(vcd))
suppressPackageStartupMessages(library(vcdExtra))
library(DescTools)
suppressPackageStartupMessages(library(car))
suppressPackageStartupMessages(library(pROC))
suppressPackageStartupMessages(library(ResourceSelection))
suppressPackageStartupMessages(library(tidyverse))
suppressPackageStartupMessages(library(dplyr))
suppressPackageStartupMessages(library(reshape2))
library(effects)
```

```
## lattice theme set by effectsTheme()
## See ?effectsTheme for details.
```

Data

```
df <- fromJSON("predicted-dataset-updated.json")</pre>
df <- df %>%
 mutate(
   persuasion_success = factor(persuasion_success,
                                levels = c(0, 1),
                                labels = c("No Delta", "Yes Delta")),
    story_class = factor(story_class),
    suspense = as.integer(suspense),
    curiosity = as.integer(curiosity),
    surprise = as.integer(surprise),
   level_suspense = factor(level_suspense,
                            levels = c("low", "medium", "high")),
   level_curiosity = factor(level_curiosity,
                             levels = c("low", "medium", "high")),
   level_surprise = factor(level_surprise,
                            levels = c("low", "medium", "high")),
   binary_suspense = factor(binary_suspense,
                             levels = c("under", "over")),
```

Story

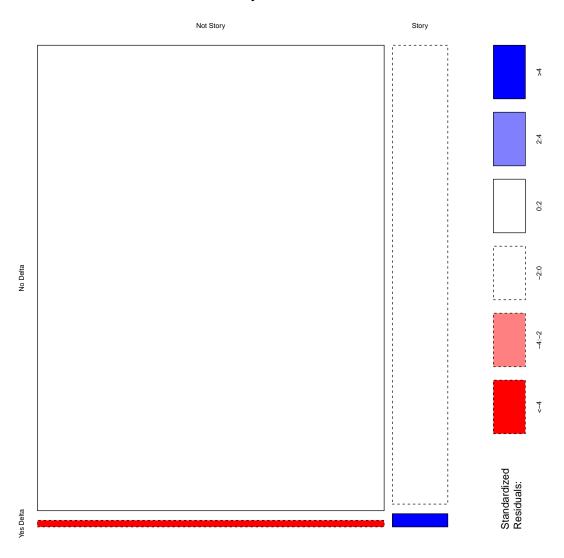
```
# contingency table
(table_story <- table(df$story_class, df$persuasion_success))</pre>
##
##
               No Delta Yes Delta
##
     Not Story
                           1169
                  82938
     Story
                  13085
                              376
# expected counts
chisq.test(table_story)$expected
##
##
               No Delta Yes Delta
##
     Not Story 82775.16 1331.8436
##
               13247.84 213.1564
     Story
# counts and row %'s table
prop.table(table_story, 1) * 100
##
##
                No Delta Yes Delta
##
     Not Story 98.610104 1.389896
##
     Story
               97.206745 2.793255
# chi-square test
(chisq_story <- chisq.test(table_story))</pre>
##
## Pearson's Chi-squared test with Yates' continuity correction
## data: table_story
## X-squared = 145.74, df = 1, p-value < 2.2e-16
# cramer's v (effect size) with CIs
cramerv_story <- assocstats(table_story)</pre>
cramerv_story$cramer
```

```
(cramerv_ci_story <- CramerV(table_story, conf.level = 0.95))

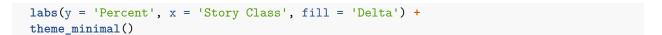
## Cramer V lwr.ci upr.ci
## 0.03876783 0.03249299 0.04504272

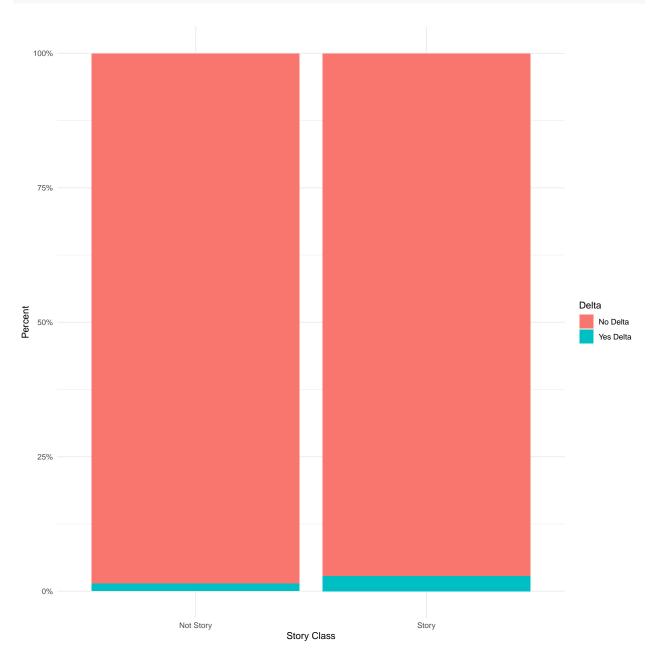
# mosaic plot
mosaicplot(table_story, shade = T, main = "Mosaic: Story vs. Persuasion Success")</pre>
```

Mosaic: Story vs. Persuasion Success



```
# stacked bar chart
ggplot(df, aes(x=story_class, fill=persuasion_success)) +
  geom_bar(position='fill') +
  scale_y_continuous(labels = scales::percent_format()) +
```



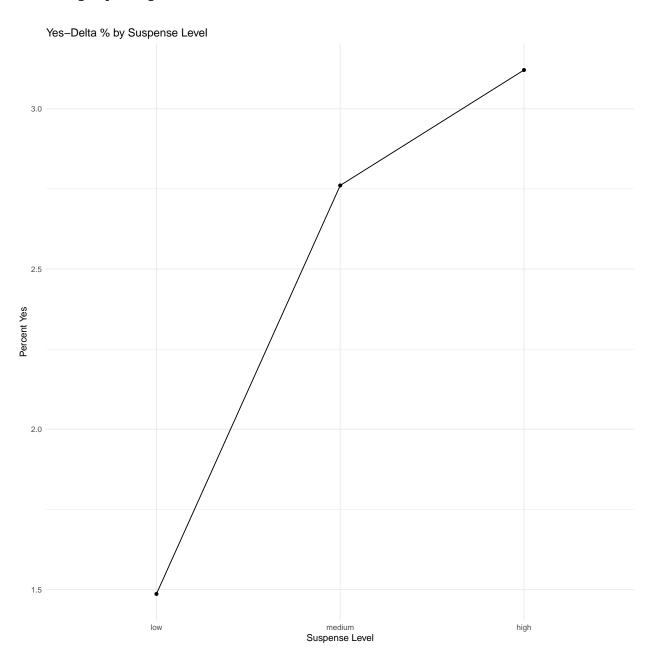


Suspense (low/medium/high)

```
(table_lvl_suspense <- table(df$level_suspense, df$persuasion_success))</pre>
```

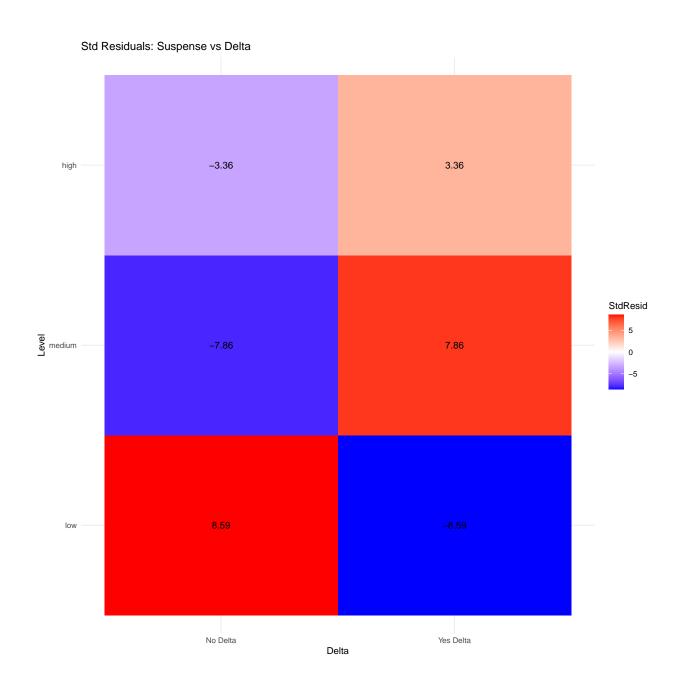
```
714
##
    high
                            23
chisq.test(table_lvl_suspense)$expected
##
##
              No Delta Yes Delta
           88916.3453 1430.65467
##
    low
    medium 6381.3251 102.67485
##
##
    high
              725.3295 11.67048
(chisq_lvl_suspense <- chisq.test(table_lvl_suspense))</pre>
##
## Pearson's Chi-squared test
##
## data: table_lvl_suspense
## X-squared = 74.283, df = 2, p-value < 2.2e-16
cramerv_lvl_suspense <- assocstats(table_lvl_suspense)</pre>
cramerv_lvl_suspense$cramer
## [1] 0.02759249
(gkgamma_lvl_suspense <- GKgamma(table_lvl_suspense))</pre>
## gamma
              : 0.31
## std. error : 0.034
## CI
                : 0.243 0.377
(catest_lvl_suspense <- CochranArmitageTest(x = table(df$level_suspense, df$persuasion_success)))</pre>
##
##
   Cochran-Armitage test for trend
## data: table(df$level_suspense, df$persuasion_success)
## Z = -8.4606, dim = 3, p-value < 2.2e-16
## alternative hypothesis: two.sided
df %>%
  group_by(level_suspense, persuasion_success) %>%
  summarise(n = n()) \%
  group_by(level_suspense) %>%
 mutate(pct = n / sum(n) * 100) %>%
  filter(persuasion_success == 'Yes Delta') %>%
  ggplot(aes(x = level_suspense, y = pct, group=1)) +
  geom_line() + geom_point() +
  labs(title='Yes-Delta % by Suspense Level', y='Percent Yes', x='Suspense Level') +
  theme_minimal()
```

'summarise()' has grouped output by 'level_suspense'. You can override using
the '.groups' argument.



```
resid_lvl_suspense <- chisq.test(table_lvl_suspense)$stdres
res_df <- melt(resid_lvl_suspense)
colnames(res_df) <- c('Level','Delta','StdResid')

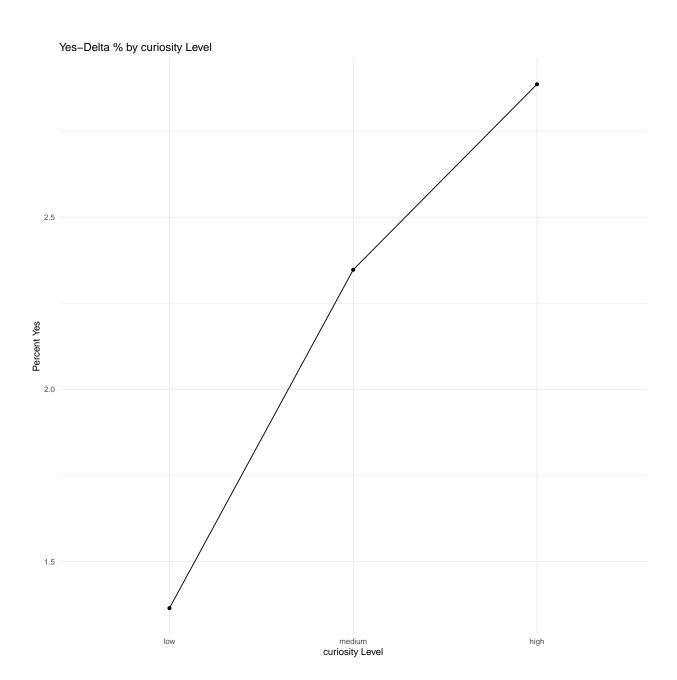
ggplot(res_df, aes(x=Delta, y=Level, fill=StdResid)) +
    geom_tile() +
    geom_text(aes(label = round(StdResid, 2))) +
    scale_fill_gradient2(low='blue', mid='white', high='red') +
    labs(title='Std Residuals: Suspense vs Delta') +
    theme_minimal()</pre>
```



$Curiosity \; (low/medium/high)$

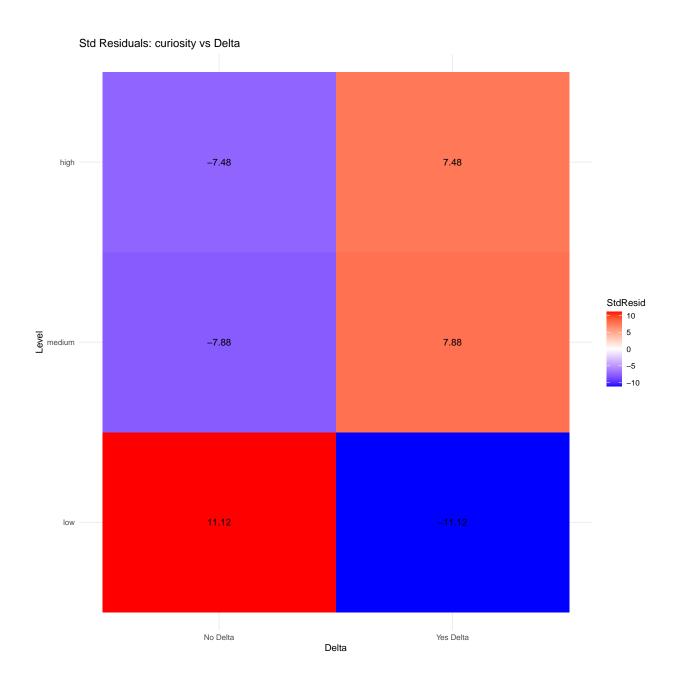
```
(table_lvl_curiosity <- table(df$level_curiosity, df$persuasion_success))</pre>
```

```
chisq.test(table_lvl_curiosity)$expected
##
             No Delta Yes Delta
##
##
    low
            77254.976 1243.02445
##
     medium 13960.379 224.62103
##
             4807.645 77.35451
    high
(chisq_lvl_curiosity <- chisq.test(table_lvl_curiosity))</pre>
##
## Pearson's Chi-squared test
## data: table_lvl_curiosity
## X-squared = 130.53, df = 2, p-value < 2.2e-16
cramerv_lvl_curiosity <- assocstats(table_lvl_curiosity)</pre>
cramerv_lvl_curiosity$cramer
## [1] 0.03657677
(gkgamma_lvl_curiosity <- GKgamma(table_lvl_curiosity))</pre>
              : 0.285
## gamma
## std. error : 0.024
## CI
               : 0.238 0.332
(catest_lvl_curiosity <- CochranArmitageTest(x = table(df$level_curiosity, df$persuasion_success)))</pre>
##
## Cochran-Armitage test for trend
## data: table(df$level_curiosity, df$persuasion_success)
## Z = -11.314, dim = 3, p-value < 2.2e-16
## alternative hypothesis: two.sided
df %>%
  group_by(level_curiosity, persuasion_success) %>%
  summarise(n = n()) \%
  group_by(level_curiosity) %>%
  mutate(pct = n / sum(n) * 100) %>%
  filter(persuasion_success == 'Yes Delta') %>%
  ggplot(aes(x = level_curiosity, y = pct, group=1)) +
  geom_line() + geom_point() +
  labs(title='Yes-Delta % by curiosity Level', y='Percent Yes', x='curiosity Level') +
  theme_minimal()
## 'summarise()' has grouped output by 'level_curiosity'. You can override using
## the '.groups' argument.
```



```
resid_lvl_curiosity <- chisq.test(table_lvl_curiosity)$stdres
res_df <- melt(resid_lvl_curiosity)
colnames(res_df) <- c('Level','Delta','StdResid')

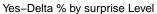
ggplot(res_df, aes(x=Delta, y=Level, fill=StdResid)) +
    geom_tile() +
    geom_text(aes(label = round(StdResid, 2))) +
    scale_fill_gradient2(low='blue', mid='white', high='red') +
    labs(title='Std Residuals: curiosity vs Delta') +
    theme_minimal()</pre>
```

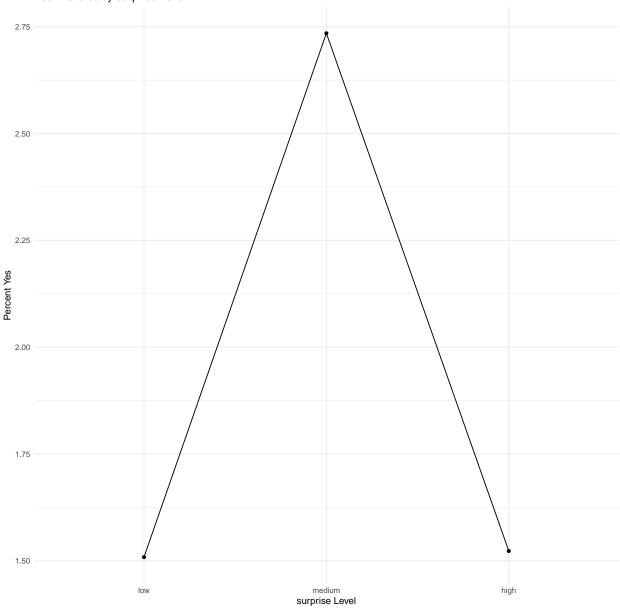


$Surprise \ (low/medium/high)$

```
(table_lvl_surprise <- table(df$level_surprise, df$persuasion_success))</pre>
```

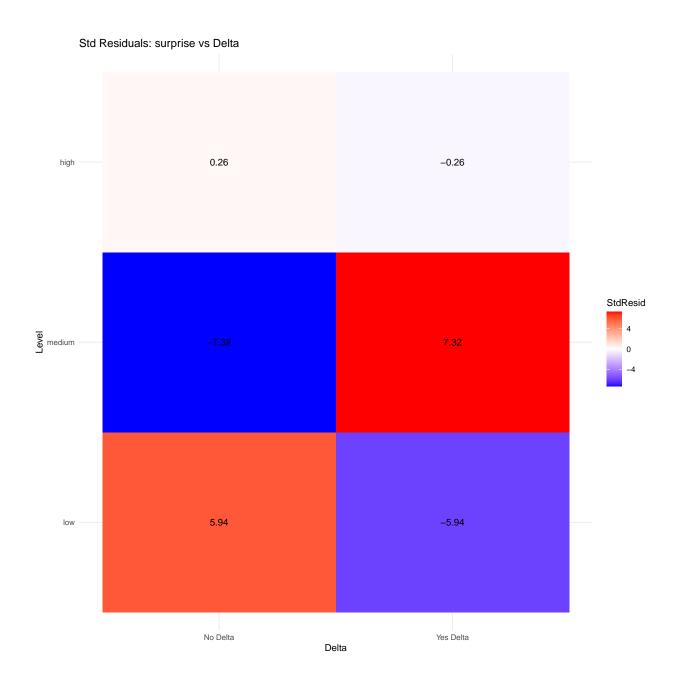
```
chisq.test(table_lvl_surprise)$expected
##
             No Delta Yes Delta
##
##
    low
            87349.555 1405.44518
##
    medium 5830.193 93.80719
             2843.252 45.74763
##
    high
(chisq_lvl_surprise <- chisq.test(table_lvl_surprise))</pre>
##
## Pearson's Chi-squared test
## data: table_lvl_surprise
## X-squared = 53.63, df = 2, p-value = 2.262e-12
cramerv_lvl_surprise <- assocstats(table_lvl_surprise)</pre>
cramerv_lvl_surprise$cramer
## [1] 0.02344496
(gkgamma_lvl_surprise <- GKgamma(table_lvl_surprise))</pre>
              : 0.207
## gamma
## std. error : 0.035
## CI
               : 0.139 0.276
(catest_lvl_surprise <- CochranArmitageTest(x = table(df$level_surprise, df$persuasion_success)))</pre>
##
## Cochran-Armitage test for trend
## data: table(df$level_surprise, df$persuasion_success)
## Z = -4.0874, dim = 3, p-value = 4.362e-05
## alternative hypothesis: two.sided
df %>%
  group_by(level_surprise, persuasion_success) %>%
  summarise(n = n()) \%
  group_by(level_surprise) %>%
  mutate(pct = n / sum(n) * 100) %>%
  filter(persuasion_success == 'Yes Delta') %>%
  ggplot(aes(x = level_surprise, y = pct, group=1)) +
  geom_line() + geom_point() +
  labs(title='Yes-Delta % by surprise Level', y='Percent Yes', x='surprise Level') +
  theme_minimal()
## 'summarise()' has grouped output by 'level_surprise'. You can override using
## the '.groups' argument.
```





```
resid_lvl_surprise <- chisq.test(table_lvl_surprise)$stdres
res_df <- melt(resid_lvl_surprise)
colnames(res_df) <- c('Level','Delta','StdResid')

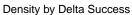
ggplot(res_df, aes(x=Delta, y=Level, fill=StdResid)) +
    geom_tile() +
    geom_text(aes(label = round(StdResid, 2))) +
    scale_fill_gradient2(low='blue', mid='white', high='red') +
    labs(title='Std Residuals: surprise vs Delta') +
    theme_minimal()</pre>
```

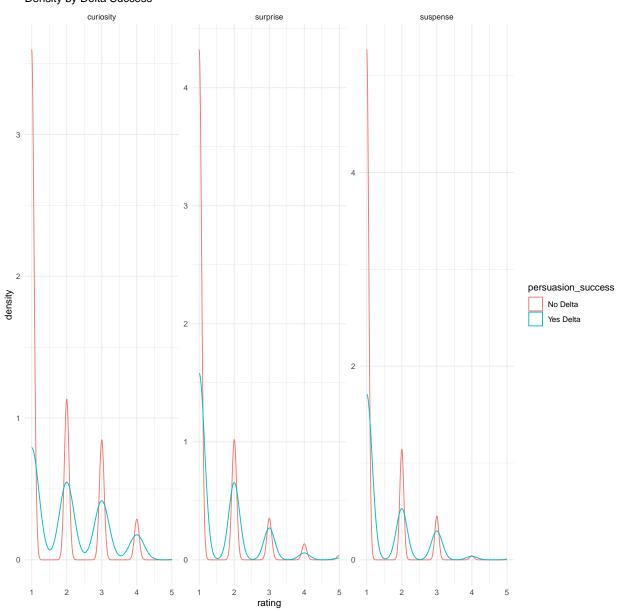


Suspense, Curiosity, Surprise (1-5)

```
df_long <- df %>% select(persuasion_success, suspense, curiosity, surprise) %>%
    pivot_longer(-persuasion_success, names_to='metric', values_to='rating')

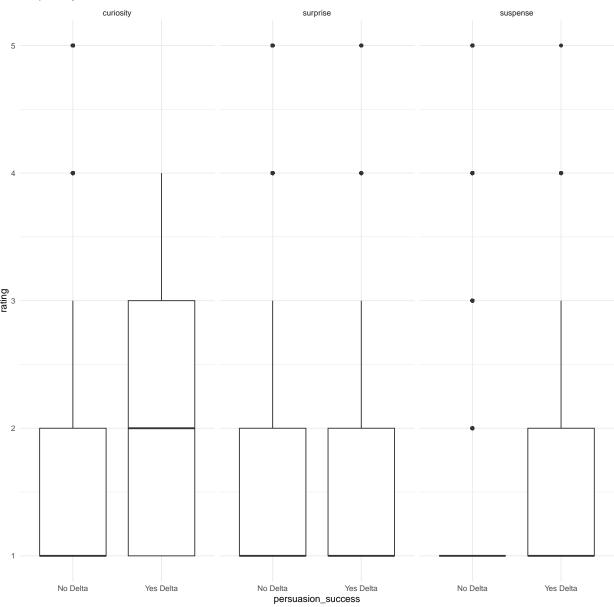
ggplot(df_long, aes(x=rating, color=persuasion_success)) +
    geom_density() + facet_wrap(~metric, scales='free') +
    labs(title='Density by Delta Success') + theme_minimal()
```





```
ggplot(df_long, aes(x=persuasion_success, y=rating)) +
  geom_boxplot() + facet_wrap(~metric) +
  labs(title='Boxplots by Delta Success') + theme_minimal()
```

Boxplots by Delta Success



```
median_Yes = medians$med[2],
    IQR_Yes
               = medians$IQR[2]
  )
})
res_mwu
##
                                        p median_No IQR_No median_Yes IQR_Yes
                          U
            metric
## W...1 suspense 66419288 2.571957e-21
                                                   1
## W...2 curiosity 58559253 1.171067e-59
                                                   1
## W...3 surprise 65050689 5.735222e-27
                                                  1
                                                                     1
                                                                              1
```

Logistic Regression with Interaction Terms

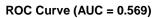
```
full_model <- glm(persuasion_success ~ story_class + level_suspense + level_curiosity + level_surprise
summary(full_model)
##
## Call:
  glm(formula = persuasion_success ~ story_class + level_suspense +
       level_curiosity + level_surprise + story_class:level_suspense +
       story_class:level_curiosity + story_class:level_surprise,
##
       family = binomial, data = df)
##
##
## Coefficients:
##
                                            Estimate Std. Error z value Pr(>|z|)
## (Intercept)
                                                       0.031487 -136.338
                                                                         < 2e-16
                                           -4.292934
## story_classStory
                                            0.404167
                                                       0.207662
                                                                   1.946
                                                                           0.0516
## level_suspensemedium
                                            0.575612
                                                       0.445446
                                                                   1.292
                                                                           0.1963
## level_suspensehigh
                                           -6.662651 119.468077
                                                                  -0.056
                                                                           0.9555
## level_curiositymedium
                                            0.389558 0.092914
                                                                  4.193 2.76e-05
## level_curiosityhigh
                                           -0.700543
                                                       0.727030 -0.964
                                                                           0.3353
## level_surprisemedium
                                           -0.167906
                                                       0.250764
                                                                 -0.670
                                                                           0.5031
## level_surprisehigh
                                           -1.701052
                                                       0.712551
                                                                  -2.387
                                                                           0.0170
## story_classStory:level_suspensemedium
                                           -0.446846
                                                       0.480952 - 0.929
                                                                           0.3528
## story_classStory:level_suspensehigh
                                            7.076620 119.468326 0.059
                                                                           0.9528
## story_classStory:level_curiositymedium
                                                                -0.012
                                                                           0.9903
                                         -0.002725
                                                       0.223749
## story_classStory:level_curiosityhigh
                                            1.051528
                                                       0.750831 1.400
                                                                           0.1614
## story_classStory:level_surprisemedium
                                            0.205176
                                                       0.277720
                                                                  0.739
                                                                           0.4600
## story_classStory:level_surprisehigh
                                            1.123657
                                                       0.736517
                                                                   1.526
                                                                           0.1271
##
## (Intercept)
                                          ***
## story_classStory
## level_suspensemedium
## level_suspensehigh
## level_curiositymedium
                                          ***
## level_curiosityhigh
## level_surprisemedium
## level_surprisehigh
## story_classStory:level_suspensemedium
## story_classStory:level_suspensehigh
## story_classStory:level_curiositymedium
```

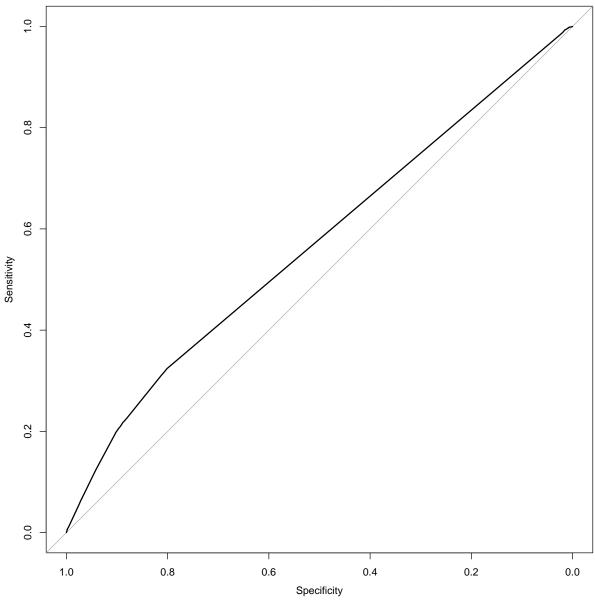
```
## story_classStory:level_curiosityhigh
## story_classStory:level_surprisemedium
## story_classStory:level_surprisehigh
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
## (Dispersion parameter for binomial family taken to be 1)
##
       Null deviance: 15875 on 97567 degrees of freedom
## Residual deviance: 15707 on 97554 degrees of freedom
## AIC: 15735
## Number of Fisher Scoring iterations: 9
ORs <- exp(coef(full_model))</pre>
CIs <- exp(confint(full model))</pre>
## Waiting for profiling to be done...
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
## Warning: glm.fit: fitted probabilities numerically 0 or 1 occurred
odds_table <- cbind(OR = ORs, CI_low = CIs[,1], CI_high = CIs[,2])
knitr::kable(odds_table, digits=3)
```

	OR	CI_low	CI_high
(Intercept)	0.014	0.013	0.015
story_classStory	1.498	0.983	2.220
level_suspensemedium	1.778	0.668	3.941
level_suspensehigh	0.001	NA	47946410.521
level_curiositymedium	1.476	1.225	1.764
level_curiosityhigh	0.496	0.081	1.620
level surprisemedium	0.845	0.500	1.341

	OR	CI_low	CI_high
level_surprisehigh	0.182	0.030	0.572
story_classStory:level_suspensemedium	0.640	0.266	1.801
story_classStory:level_suspensehigh	1183.960	0.000	NA
story_classStory:level_curiositymedium	0.997	0.649	1.562
story_classStory:level_curiosityhigh	2.862	0.822	18.163
story_classStory:level_surprisemedium	1.228	0.730	2.177
$story_classStory:level_surprisehigh$	3.076	0.915	19.166

```
(tbl_vif <- vif(full_model))</pre>
## there are higher-order terms (interactions) in this model
## consider setting type = 'predictor'; see ?vif
                                       GVIF Df GVIF^(1/(2*Df))
##
## story_class
                               1.195412e+01 1
                                                      3.457473
## level_suspense
                               9.519744e+06 2
                                                     55.546452
## level_curiosity
                               1.407604e+02 2
                                                      3.444452
## level_surprise
                               1.879889e+02 2
                                                      3.702824
## story_class:level_suspense 1.077044e+07 2
                                                     57.287301
## story_class:level_curiosity 5.586118e+02 2
                                                      4.861581
## story_class:level_surprise 2.097013e+02 2
                                                      3.805400
(hl <- hoslem.test(as.numeric(df$persuasion_success) - 1, fitted(full_model), g=10))</pre>
## Warning in hoslem.test(as.numeric(df$persuasion_success) - 1,
## fitted(full_model), : The data did not allow for the requested number of bins.
##
## Hosmer and Lemeshow goodness of fit (GOF) test
##
## data: as.numeric(df$persuasion_success) - 1, fitted(full_model)
## X-squared = 0.22963, df = 2, p-value = 0.8915
roc_obj <- roc(df$persuasion_success, predict(full_model, type='response'))</pre>
## Setting levels: control = No Delta, case = Yes Delta
## Setting direction: controls < cases
plot(roc_obj, main = paste0('ROC Curve (AUC = ', round(auc(roc_obj),3), ')'))
```





Old stuff

```
(table_story_class <- table(df$story_class, df$persuasion_success))

##
## No Delta Yes Delta
## Not Story 82938 1169
## Story 13085 376

chisq.test(table_story_class)$expected</pre>
```

```
##
##
              No Delta Yes Delta
##
    Not Story 82775.16 1331.8436
              13247.84 213.1564
##
    Story
chisq.test(table_story_class)
  Pearson's Chi-squared test with Yates' continuity correction
##
## data: table_story_class
## X-squared = 145.74, df = 1, p-value < 2.2e-16
assocstats(table_story_class)$cramer
## [1] 0.03876783
#mosaicplot(table_story_class, shade=TRUE, main="Story vs. Persuasion Success")
# stacked bar chart
# table with counts and row percentage
# explain each piece of code and result
# independence of each post (no repeated measures)
(table_level_suspense <- table(df$level_suspense, df$persuasion_success))</pre>
##
           No Delta Yes Delta
##
##
              89004
                         1343
    low
##
    medium
               6305
                           179
                714
                            23
##
    high
chisq.test(table_level_suspense)$expected
##
              No Delta Yes Delta
##
##
           88916.3453 1430.65467
     low
    medium 6381.3251 102.67485
##
    high
             725.3295
                        11.67048
chisq.test(table_level_suspense)
##
## Pearson's Chi-squared test
## data: table_level_suspense
## X-squared = 74.283, df = 2, p-value < 2.2e-16
assocstats(table_level_suspense)$cramer
```

[1] 0.02759249

```
GKgamma(table_level_suspense)
## gamma
              : 0.31
## std. error : 0.034
## CI
               : 0.243 0.377
\# ordinal trend test (Cochran-Armitage)
# profile plot
# stacked bar chart
# heatmap
(table_level_curiosity <- table(df$level_curiosity, df$persuasion_success))</pre>
##
           No Delta Yes Delta
##
##
    low
              77427
                        1071
##
    medium 13852
                          333
##
               4744
                          141
    high
chisq.test(table_level_curiosity)$expected
##
##
            No Delta Yes Delta
         77254.976 1243.02445
##
    low
##
    medium 13960.379 224.62103
    high
          4807.645 77.35451
##
chisq.test(table_level_curiosity)
##
## Pearson's Chi-squared test
## data: table_level_curiosity
## X-squared = 130.53, df = 2, p-value < 2.2e-16
assocstats(table_level_curiosity)$cramer
## [1] 0.03657677
GKgamma(table_level_curiosity)
## gamma
             : 0.285
## std. error : 0.024
## CI
              : 0.238 0.332
# ordinal trend test (Cochran-Armitage)
# profile plot
# stacked bar chart
# heatmap
(table_level_surprise <- table(df$level_surprise, df$persuasion_success))</pre>
```

```
##
##
           No Delta Yes Delta
            87416 1339
##
              5762
                         162
##
    medium
    high
               2845
                           44
chisq.test(table_level_surprise)$expected
##
##
            No Delta Yes Delta
         87349.555 1405.44518
    low
##
    medium 5830.193 93.80719
            2843.252 45.74763
##
    high
chisq.test(table_level_surprise)
##
## Pearson's Chi-squared test
## data: table_level_surprise
## X-squared = 53.63, df = 2, p-value = 2.262e-12
assocstats(table_level_surprise)$cramer
## [1] 0.02344496
GKgamma(table_level_surprise)
           : 0.207
## gamma
## std. error : 0.035
## CI
               : 0.139 0.276
# ordinal trend test (Cochran-Armitage)
# profile plot
# stacked bar chart
# heatmap
full_model <- glm(</pre>
 persuasion_success ~ story_class + level_suspense + level_curiosity + level_surprise + story_class:le
summary(full_model)
##
## glm(formula = persuasion_success ~ story_class + level_suspense +
       level_curiosity + level_surprise + story_class:level_suspense +
##
       story_class:level_curiosity + story_class:level_surprise,
##
      family = binomial, data = df)
##
## Coefficients:
                                           Estimate Std. Error z value Pr(>|z|)
##
```

```
## (Intercept)
                                           -4.292934
                                                       0.031487 -136.338 < 2e-16
## story_classStory
                                                                   1.946
                                                                            0.0516
                                            0.404167
                                                       0.207662
                                                                   1.292
## level suspensemedium
                                            0.575612
                                                       0.445446
                                                                            0.1963
## level_suspensehigh
                                           -6.662651 119.468077 -0.056
                                                                            0.9555
## level curiositymedium
                                            0.389558
                                                       0.092914
                                                                   4.193 2.76e-05
## level curiosityhigh
                                                                 -0.964
                                                                            0.3353
                                           -0.700543
                                                       0.727030
## level surprisemedium
                                                                  -0.670
                                                                            0.5031
                                           -0.167906
                                                       0.250764
## level surprisehigh
                                                                  -2.387
                                           -1.701052
                                                       0.712551
                                                                            0.0170
## story_classStory:level_suspensemedium
                                           -0.446846
                                                       0.480952
                                                                  -0.929
                                                                            0.3528
## story_classStory:level_suspensehigh
                                            7.076620 119.468326
                                                                   0.059
                                                                            0.9528
## story_classStory:level_curiositymedium
                                          -0.002725
                                                        0.223749
                                                                 -0.012
                                                                            0.9903
## story_classStory:level_curiosityhigh
                                                                            0.1614
                                            1.051528
                                                        0.750831
                                                                    1.400
## story_classStory:level_surprisemedium
                                            0.205176
                                                       0.277720
                                                                    0.739
                                                                            0.4600
## story_classStory:level_surprisehigh
                                                       0.736517
                                            1.123657
                                                                    1.526
                                                                            0.1271
##
## (Intercept)
                                          ***
## story_classStory
## level suspensemedium
## level_suspensehigh
## level curiositymedium
                                          ***
## level_curiosityhigh
## level surprisemedium
## level_surprisehigh
## story classStory:level suspensemedium
## story classStory:level suspensehigh
## story classStory:level curiositymedium
## story_classStory:level_curiosityhigh
## story_classStory:level_surprisemedium
## story_classStory:level_surprisehigh
## ---
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
##
##
  (Dispersion parameter for binomial family taken to be 1)
##
       Null deviance: 15875 on 97567
                                       degrees of freedom
## Residual deviance: 15707 on 97554 degrees of freedom
## AIC: 15735
##
## Number of Fisher Scoring iterations: 9
#odds_ratios <- exp(coef(full_model))</pre>
#conf_ints <- exp(confint(full_model))</pre>
#cbind(odds_ratio = odds_ratios, low_conf_int = conf_ints[,1], upper_conf_int = conf_ints[,2])
```