Flexible sexual appetite - Analysis Report

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descriptive numbers

dead females during training

```
DeadFemales
```

```
##
##     RedAverse RedPreference
##            12            23
```

```
AliveFemales
```

```
##
##     RedAverse RedPreference
##            45            48
```

```
chisq.test(rbind(DeadFemales,AliveFemales))
```

```
##
##  Pearson's Chi-squared test with Yates' continuity correction
##
## data:  rbind(DeadFemales, AliveFemales)
## X-squared = 1.5161, df = 1, p-value = 0.2182
```

dead males during tests

Males tests excluded out of {r, echo=FALSE} nrow(MY_TABLE_MaleTest)

```
##
## BlackMaleDied    FemaleDied FemaleStarved   RedMaleDied
##            10             3             8             3
```

```
chisq.test(rbind(c(10,3),c(97,104)))
```

```
##
##  Pearson's Chi-squared test with Yates' continuity correction
##
## data:  rbind(c(10, 3), c(97, 104))
## X-squared = 2.9483, df = 1, p-value = 0.08597
```

duration to male consumption

number valid tests: 80

number test male consumed during video:15

percentage of test where consumption within first day: 27.5

Delay to consumption all valid tests:

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   0.000   0.000   2.000   4.339   5.042  31.000       3
```

Bug test

```
##
## Call:
## glm(formula = AttackBugYN ~ Trt + Fcondition, family = "binomial",
##     data = MY_TABLE_BugTest)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.3822  -1.0170   0.9951   1.0342   1.4017
##
## Coefficients:
##                   Estimate Std. Error z value Pr(>|z|)
## (Intercept)       -0.4422     0.2748  -1.609   0.1076
## TrtRedPreference   0.8293     0.3704   2.239   0.0252 *
## Fcondition        -8.7534    31.1049  -0.281   0.7784
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 173.28  on 124  degrees of freedom
## Residual deviance: 168.15  on 122  degrees of freedom
## AIC: 174.15
##
## Number of Fisher Scoring iterations: 4
```

Termite test

```
##
## Call:
## glm(formula = AttackNewRedYN ~ Trt, family = "binomial", data = MY_TABLE_TermiteTest)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.0842  -1.0842  -0.9297   1.2735   1.4473
##
## Coefficients:
```

```
##                  Estimate Std. Error z value Pr(>|z|)
## (Intercept)       -0.6152     0.2775  -2.217   0.0267 *
## TrtRedPreference   0.3920     0.3564   1.100   0.2713
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 186.38  on 137  degrees of freedom
## Residual deviance: 185.16  on 136  degrees of freedom
## AIC: 189.16
##
## Number of Fisher Scoring iterations: 4
```

equality of motivation to feed

```
##
##  Welch Two Sample t-test
##
## data:  log(MY_TABLE_TermiteTest$LatencyAttack[MY_TABLE_TermiteTest$Trt ==  and log(MY_TABLE_TermiteT
## t = 0.26756, df = 110.91, p-value = 0.7895
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -0.5228022  0.6860234
## sample estimates:
## mean of x mean of y
##  2.092866  2.011255
```

Male test

```
##
## Call:
## glm(formula = CannibalizedRedYN ~ Trt + DeltaMsize + DeltaMcondition,
##     family = "binomial", data = MY_TABLE_MaleTestValid)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -1.0056  -0.9148  -0.7826   1.3988   1.7301
##
## Coefficients:
##                  Estimate Std. Error z value Pr(>|z|)
## (Intercept)       -0.6140     0.3312  -1.854   0.0637 .
## TrtRedPreference  -0.4199     0.5024  -0.836   0.4033
## DeltaMsize        -2.5473     6.0305  -0.422   0.6727
## DeltaMcondition   10.7190    97.0272   0.110   0.9120
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##     Null deviance: 99.374  on 79  degrees of freedom
## Residual deviance: 98.333  on 76  degrees of freedom
```

```
## AIC: 106.33
##
## Number of Fisher Scoring iterations: 4
```

equality of male motivation to court

videos not watched yet

FID repeatability

```
## Generalized linear mixed model fit by maximum likelihood (Laplace
##   Approximation) [glmerMod]
##  Family: binomial  ( logit )
## Formula: AttackRedYN ~ Trt + (1 | FID)
##    Data: MY_TABLE_Step
##
##      AIC      BIC   logLik deviance df.resid
##    468.6    480.1   -231.3    462.6      340
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -0.9812 -0.8297 -0.6957  1.0606  1.3677
##
## Random effects:
##  Groups Name        Variance Std.Dev.
##  FID    (Intercept) 0.1698   0.4121
## Number of obs: 343, groups:  FID, 125
##
## Fixed effects:
##                   Estimate Std. Error z value Pr(>|z|)
## (Intercept)       -0.5595     0.1803  -3.104  0.00191 **
## TrtRedPreference   0.4318     0.2428   1.778  0.07535 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr)
## TrtRdPrfrnc -0.753
```

```
## Bootstrap Progress:
##
##
## Repeatability estimation using the glmm method and logit link
##
## Repeatability for FID
## --------------------------------
## Link-scale approximation:
## R  = 0.039
## SE = 0.035
## CI = [0, 0.118]
## P  = 0.178 [LRT]
##      NA [Permutation]
```

```
##
## Original-scale approximation:
## R  = 0.039
## SE = 0.034
## CI = [0, 0.112]
## P  = 0.178 [LRT]
##      NA [Permutation]
##
## Repeatability for Fixed
## -------------------------------
## Link-scale approximation:
## R  = 0.011
## SE = 0.012
## CI = [0, 0.045]
## P  = NA [LRT]
##      NA [Permutation]
##
## Original-scale approximation:
## R  = 0.011
## SE = 0.012
## CI = [0, 0.043]
## P  = NA [LRT]
##      NA [Permutation]
```

Odds ratio

Bug

```
##       OR    2.5 %   97.5 %
## 2.291711 1.117010 4.792772
```

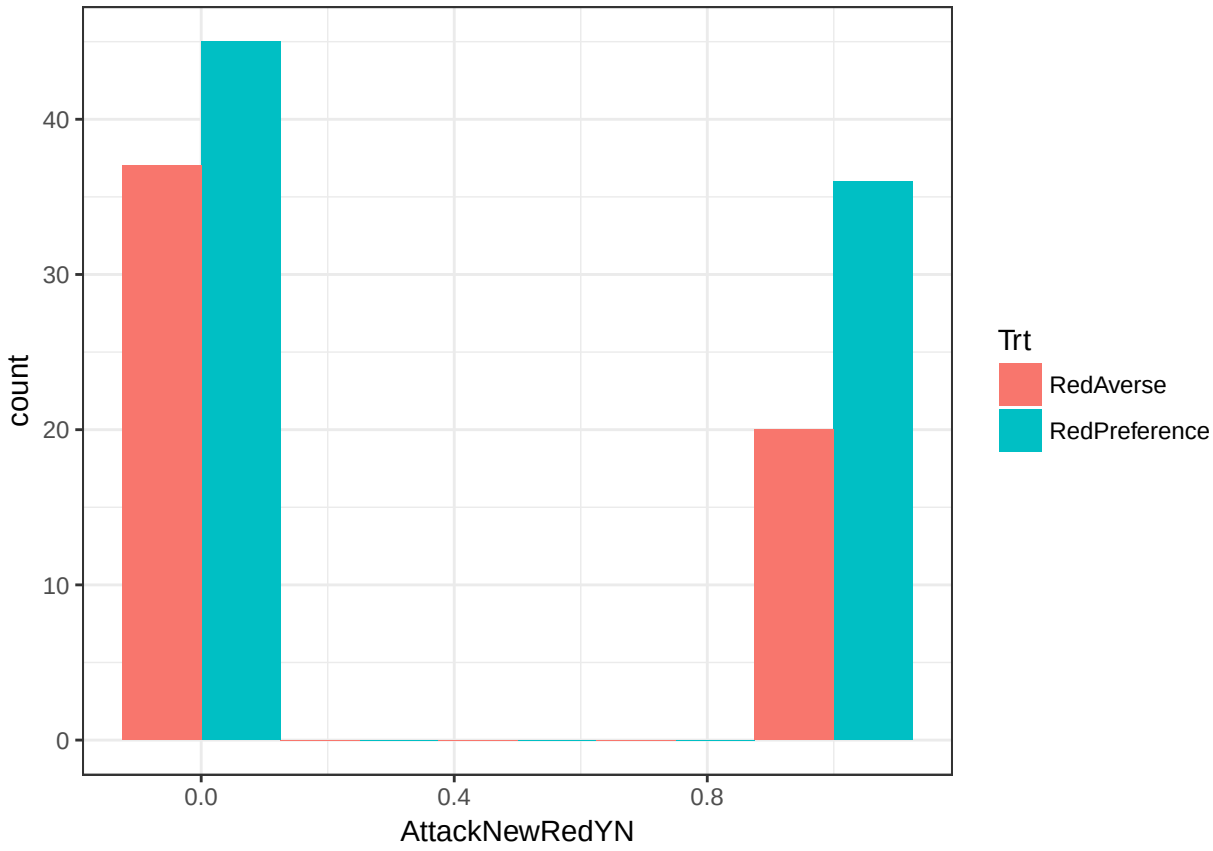
Termite

```
##        OR     2.5 %    97.5 %
## 1.4800000 0.7399342 3.0057548
```

Male

```
##        OR     2.5 %    97.5 %
## 0.6571182 0.2400022 1.7463719
```

Termite graph against 50/50



Male graph against 50/50