Simon test

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```
library(noggin)
load('testdata/ISIP_raw.Rdata')

# Raw experiment file
head(simon)
```

```
## # A tibble: 6 × 15
##     build computer.platform  date  time subject     blockcode blocknum
##     <chr>             <chr> <dbl> <dbl>   <int>         <chr>    <int>
## 1 5.0.5.0               win 13117 47281       1 practiceblock        2
## 2 5.0.5.0               win 13117 47281       1 practiceblock        2
## 3 5.0.5.0               win 13117 47281       1 practiceblock        2
## 4 5.0.5.0               win 13117 47281       1 practiceblock        2
## 5 5.0.5.0               win 13117 47281       1 practiceblock        2
## 6 5.0.5.0               win 13117 47281       1 practiceblock        2
## # ... with 8 more variables: trialcode <chr>, trialnum <int>,
## #   values.congruence <chr>, values.stimhpos <chr>, values.stimtype <chr>,
## #   response <chr>, correct <int>, latency <int>
```

```
# Score the experiment and store it to object "td"
td <- scoreExpt(simon, type = "simon")


# Summarize
summary(td)
```

```
## Data collected between 2017-01-26 and 2017-02-28
##     over 20 days of collection.
## Total included subjects: 162
## Subjects per collection day: 8.1
##
## [1] "Classical statistics: "
##                   n   mean    sd median trimmed   mad     min    max  range
## inc_latency   162 429.09 62.60 425.36  424.66 56.34  318.93 587.71 268.79
## cong_latency  162 421.23 68.81 411.25  416.17 63.75  296.50 622.57 326.07
## inc_accuracy  162   0.91  0.11   0.93    0.93  0.11    0.36   1.00   0.64
## cong_accuracy 162   0.93  0.12   0.93    0.96  0.11    0.14   1.00   0.86
## t_diff        162   7.86 47.69  12.64    8.92 40.29 -164.36 165.29 329.64
## d             162   0.04  0.14   0.03    0.03  0.12   -0.32   0.59   0.91
##                  skew kurtosis   se
## inc_latency      0.57    -0.19 4.92
## cong_latency     0.66    -0.03 5.41
## inc_accuracy    -2.09     5.72 0.01
## cong_accuracy   -3.71    18.43 0.01
## t_diff          -0.31     1.40 3.75
## d                0.85     1.49 0.01
```

```
# Summarize with bootstrapping
summary(td, statmethod = "bootstrap")
```

```
## Data collected between 2017-01-26 and 2017-02-28
##     over 20 days of collection.
## Total included subjects: 162
## Subjects per collection day: 8.1
##
## [1] "Bootstrapped statistics & conf. intervals, k = 10,000: "
##               Observed mean   n median 95% CI lower 95% CI upper
## inc_latency          429.09 162 429.16       421.16       437.19
## cong_latency         421.23 162 421.28       412.55       430.28
## inc_accuracy           0.91 162   0.91         0.90         0.93
## cong_accuracy          0.93 162   0.93         0.92         0.95
## t_diff                 7.86 162   7.89         1.70        13.93
## d                      0.04 162   0.04         0.03         0.06
```

```
# Extract the scored dataframe
scored <- td$scored  # or td[['scored']]
head(scored)
```

```
## Source: local data frame [6 x 11]
## Groups: subject [6]
##
##   subject cong_latency cong_accuracy   cong_sd cong_n inc_latency
##     <int>        <dbl>         <dbl>     <dbl>  <int>       <dbl>
## 1       1     443.0000     0.9142857 170.93935     70    488.6286
## 2      25     579.5000     0.9285714 126.74793     14    521.9286
## 3     101     494.6429     1.0000000  82.72532     14    570.5000
## 4     102     342.8571     1.0000000  75.36665     14    355.8571
## 5     103     622.5714     0.2857143 142.46982     14    553.0714
## 6     104     541.4286     0.8571429 154.78855     14    587.7143
## # ... with 5 more variables: inc_accuracy <dbl>, inc_sd <dbl>,
## #   inc_n <int>, t_diff <dbl>, d <dbl>
```

```
# Experiment objects also retain their raw data
head(td$raw)
```

```
## # A tibble: 6 × 15
##     build computer.platform  date  time subject     blockcode blocknum
##     <chr>             <chr> <dbl> <dbl>   <int>         <chr>    <int>
## 1 5.0.5.0               win 13117 47281       1 practiceblock        2
## 2 5.0.5.0               win 13117 47281       1 practiceblock        2
## 3 5.0.5.0               win 13117 47281       1 practiceblock        2
## 4 5.0.5.0               win 13117 47281       1 practiceblock        2
## 5 5.0.5.0               win 13117 47281       1 practiceblock        2
## 6 5.0.5.0               win 13117 47281       1 practiceblock        2
## # ... with 8 more variables: trialcode <chr>, trialnum <int>,
## #   values.congruence <chr>, values.stimhpos <chr>, values.stimtype <chr>,
## #   response <chr>, correct <int>, latency <int>
```