

Comparing the groups

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Compare the *Curiosity* groups

```
##      CurGrpMd      Mean      SD
## 1:      High 0.2510022 0.1523117
## 2:      Low 0.2598545 0.1557280
```

Statistic difference

```
##
## Paired t-test
##
## data:  SAcc by CurGrpMd
## t = -0.38627, df = 25, p-value = 0.7026
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -0.05605085 0.03834634
## sample estimates:
## mean of the differences
## -0.008852259
```

Include the item order

```
##      CurGrpMd ObjOrdGrp      Mean      SD
## 1:      High      Early 0.2526353 0.1734485
## 2:      High      Later 0.2493691 0.1784150
## 3:      Low      Early 0.2697751 0.1596873
## 4:      Low      Later 0.2499339 0.1782904
```

Statistic difference

```
## $ANOVA
##           Effect DFn Dfd           F           p p<.05           ges
## 2           CurGrpMd    1   25 0.1492072 0.7025621      0.0006832108
## 3           ObjOrdGrp    1   25 0.3283328 0.5717608      0.0011632734
## 4 CurGrpMd:ObjOrdGrp    1   25 0.1300348 0.7214250      0.0005988734
```

Compare the *Interest* groups

```
##      IntGrpMd      Mean      SD
## 1:      High 0.2665090 0.1528836
## 2:      Low 0.2429055 0.1588604
```

Statistic difference

```
##
## Paired t-test
##
## data: SAcc by IntGrpMd
## t = 1.1732, df = 25, p-value = 0.2518
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -0.01783330 0.06504026
## sample estimates:
## mean of the differences
##                0.02360348
```

Include the item order

```
##      IntGrpMd ObjOrdGrp      Mean      SD
## 1:      High      Early 0.2517043 0.1858271
## 2:      High      Later 0.2813136 0.1595931
## 3:      Low      Early 0.2474308 0.1545631
## 4:      Low      Later 0.2383801 0.1898317
```

Statistic difference

```
## $ANOVA
##           Effect DFn Dfd           F           p p<.05           ges
## 2           IntGrpMd    1   25 1.3763215 0.2517856      0.0048081003
## 3           ObjOrdGrp    1   25 0.2428947 0.6264242      0.0009154703
## 4 IntGrpMd:ObjOrdGrp    1   25 0.8524136 0.3646961      0.0032297751
```

Compare the *Surprise* groups

```
##      SurGrpMd      Mean      SD
## 1:      High 0.3020019 0.1723657
## 2:      Low 0.2178292 0.1529677
```

Statistic difference

```
##
## Paired t-test
##
## data: SAcc by SurGrpMd
## t = 3.1552, df = 25, p-value = 0.004146
## alternative hypothesis: true difference in means is not equal to 0
```

```
## 95 percent confidence interval:
## 0.02923024 0.13911530
## sample estimates:
## mean of the differences
## 0.08417277
```

Include the item order

```
## SurGrpMd ObjOrdGrp Mean SD
## 1: High Early 0.2966524 0.1892961
## 2: High Later 0.3073514 0.1756607
## 3: Low Early 0.2222629 0.1617775
## 4: Low Later 0.2133954 0.1868869
```

Statistic difference

```
## $ANOVA
## Effect DFn DFd F p p<.05 ges
## 2 SurGrpMd 1 25 9.955563003 0.004145808 * 5.451784e-02
## 3 ObjOrdGrp 1 25 0.001765054 0.966822441 6.824860e-06
## 4 SurGrpMd:ObjOrdGrp 1 25 0.269984232 0.607912712 7.783450e-04
```

Compare the *Pre-Interest* groups

```
## PreIntGrpMd Mean SD
## 1: High 0.2458435 0.1396809
## 2: Low 0.2541311 0.1688553
```

Statistic difference

```
##
## Paired t-test
##
## data: SAcc by PreIntGrpMd
## t = -0.41178, df = 25, p-value = 0.684
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -0.04973845 0.03316336
## sample estimates:
## mean of the differences
## -0.008287546
```

Include the item order

```
## PreIntGrpMd ObjOrdGrp Mean SD
## 1: High Early 0.2357550 0.1571281
## 2: High Later 0.2559320 0.1641849
## 3: Low Early 0.2473850 0.1876699
## 4: Low Later 0.2608771 0.1648013
```

Statistic difference

```
## $ANOVA
## Effect DFn DFd F p p<.05 ges
## 2 PreIntGrpMd 1 25 0.16956009 0.6840123 0.0006260537
## 3 ObjOrdGrp 1 25 0.75283941 0.3938313 0.0025781835
## 4 PreIntGrpMd:ObjOrdGrp 1 25 0.03545828 0.8521588 0.0001018891
```

Compare the *Pre-Surprise* groups

```
##      PreSurGrpMd      Mean      SD
## 1:      High 0.2837249 0.1541879
## 2:      Low 0.2178360 0.1643459
```

Statistic difference

```
##
## Paired t-test
##
## data: SAcc by PreSurGrpMd
## t = 2.248, df = 24, p-value = 0.03403
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## 0.005396606 0.126381172
## sample estimates:
## mean of the differences
## 0.06588889
```

Include the item order

```
##      PreSurGrpMd ObjOrdGrp      Mean      SD
## 1:      High      Early 0.2759153 0.1480133
## 2:      High      Later 0.2915344 0.1910806
## 3:      Low      Early 0.2208360 0.1760099
## 4:      Low      Later 0.2148360 0.1692047
```

Statistic difference

```
## $ANOVA
##      Effect DFn DFd      F      p p<.05      ges
## 2      PreSurGrpMd 1 24 5.0536029 0.03403155 * 0.0369006339
## 3      ObjOrdGrp 1 24 0.0524164 0.82085039 0.0002041051
## 4 PreSurGrpMd:ObjOrdGrp 1 24 0.5379768 0.47037706 0.0010301581
```

Check any overlap between *Surprise* groups and *Pre-surprise* groups

```
##      SubjectNo NOverlappingRooms
## 1:      P04 4
## 2:      P05 2
## 3:      P06 2
## 4:      P07 7
## 5:      P08 6
## 6:      P09 3
## 7:      P10 5
## 8:      P11 2
## 9:      P12 8
## 10:      P13 4
## 11:      P14 9
## 12:      P15 5
## 13:      P16 2
## 14:      P17 2
## 15:      P18 3
## 16:      P19 2
## 17:      P20 6
```

```

## 18:      P21      3
## 19:      P22      9
## 20:      P23      5
## 21:      P24      5
## 22:      P25      3
## 23:      P26      6
## 24:      P27      8
## 25:      P28      6
## 26:      P29      2
## 27:      P30      2
## 28:      P31      3
## 29:      P32      4
##      SubjectNo NOverlappingRooms

```

