

Test+a+Perceptual+Phenomenon+zh

September 14, 2018

0.0.1

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Stroop "//////////"

(1)

(2)

(<30)(t test12t test, =0.05 H0: 1 - 2 =0 Ha: 1 2
Stroop Java Stroop

(3)

```
In [7]: import pandas as pd
import numpy as np
```

```
In [26]: df = pd.read_csv('./stroopdata.csv')
df.mean() - df.median()
```

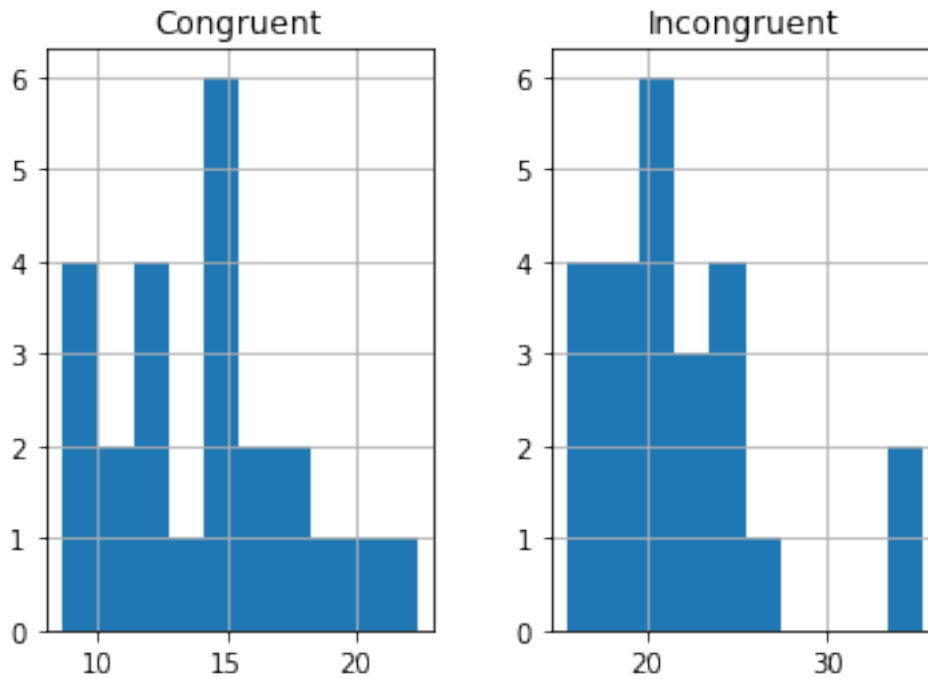
```
Out[26]: Congruent      -0.305375
Incongruent    0.998417
dtype: float64
```

```
In [14]: df.std()
```

```
Out[14]: Congruent      3.559358
Incongruent    4.797057
dtype: float64
```

(4)

```
In [23]: df.hist();
```



(5)

```
In [27]: #
```

```
n = len(df)
n
```

```
Out[27]: 24
```

```
In [45]: #t-critical value for a 95% and n-1=23
from scipy.stats import t
t.ppf(.95, 23)
```

```
Out[45]: 1.7138715277470473
```

```
In [48]: #t-statistic value
from scipy import stats
stats.ttest_1samp(df['Congruent'] - df['Incongruent'], 0)
```

```
Out[48]: Ttest_1sampResult(statistic=-8.020706944109957, pvalue=4.1030005857111781e-08)
```

t-statistic value -8.02 < -1.71(t-critical value for a 95%)95%Stroopyu