

## 28.4: Bayes Factor for Mean Differences

As we discussed in the chapter on Bayesian analysis, Bayes factors provide a way to better quantify evidence in favor or against the null hypothesis of no difference. In this case, we want to specifically test against the null hypothesis that the difference is greater than zero - because the difference is computed by the function between the first group ('No') and the second group ('Yes'). Thus, we specify a "null interval" going from zero to infinity, which means that the alternative is less than zero.

```
## Bayes factor analysis
## -----
## [1] Alt., r=0.707 0<d<Inf      : 0.051 ±0%
## [2] Alt., r=0.707 !(0<d<Inf) : 8.7   ±0%
##
## Against denominator:
##   Null, mu1-mu2 = 0
## ---
## Bayes factor type: BFindepSample, JZS
```

This shows us that the evidence against the null hypothesis is moderately strong.

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