

Stats analysis

- ☀ Type of data?
 - ☀ Qualitative / Quantitative
 - ☀ Categorical / Numerical
 - ☀ Paired / Unpaired
- ☀ Parametric / non-parametric tests?
- ☀ Appropriate test used?

Qualitative / Categorical data

- ✦ Nominal

- ✦ Binary

- ✦ yes/no, either/or, dead/alive

- ✦ Ordinal / Ranked

- ✦ very good/ good/ adequate/ poor/ very poor

Quantitative / Numerical

- ✦ Continuous

1,2,3,4,5,6,7.....

- ✦ Discrete

- ✦ Number of children or number of cars owned, etc

Summarizing data

- ✦ Standard deviation

- ✦ Statistical measure that describes extent of data spread or scatter.

- ✦ Interquartile range

- ✦ Statistical measure that describes extent of spread of middle 50% of ranked data



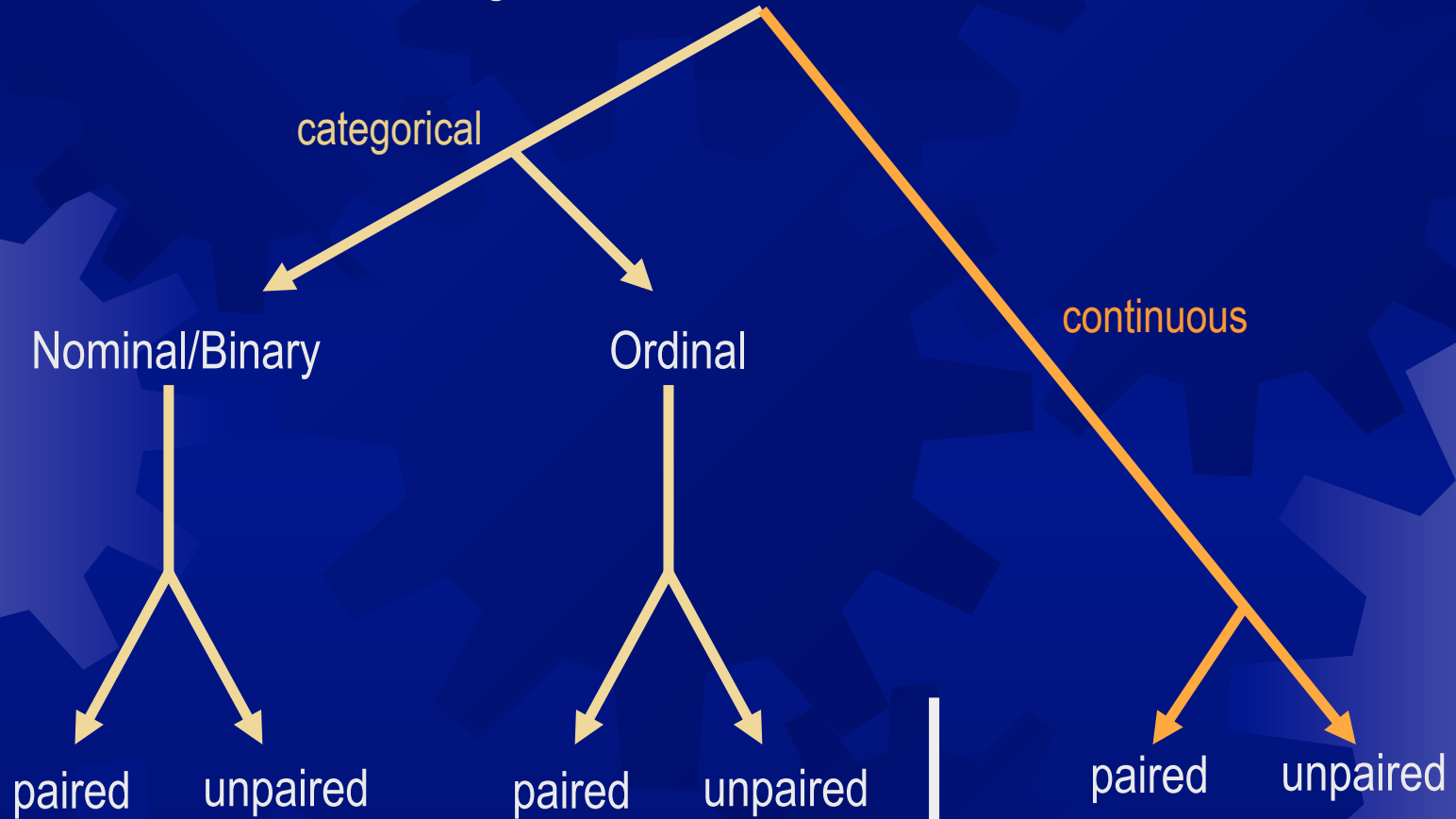
✦ Normal distribution

✦ parametric tests

✦ Skewed

✦ non-parametric tests

Categorical or Continuous data?



Parametric tests
only

Parametric or
non-parametric
tests

Nominal / Binary

☀ PAIRED

- ☀ McNemars test

☀ UNPAIRED

- ☀ Chi-2
- ☀ Fischer test
- ☀ Logistic regression
- ☀ Log rank test
- ☀ Polytomous logistic regression

Ordinal

- ☀ PAIRED

- ☀ Wilcoxon

- ☀ UNPAIRED

- ☀ Mann-Whitney U test

- ☀ Ordered logistic regression

- ☀ Chi-2 test for trend

Continuous

★ PAIRED

- ★ Paired t-test
- ★ Paired z-test
- ★ Wilcoxon (non para)
- ★ Specialist tests if measuring
>2 variables in one subject

★ UNPAIRED

- ★ Unpaired t-test
- ★ Unpaired z-test
- ★ Regression analysis
- ★ Mann Whitney U test
- ★ Analysis of variance
- ★ Kruck-Wallis test

Categorical or Continuous data?

