





RF Tree Variance: Bagging







































































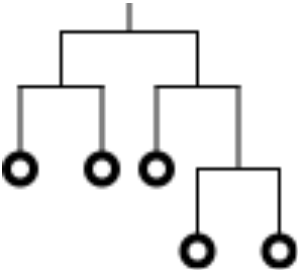


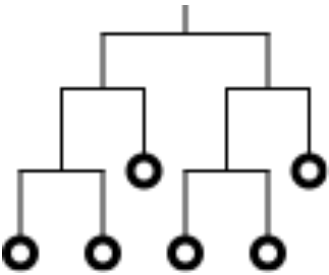


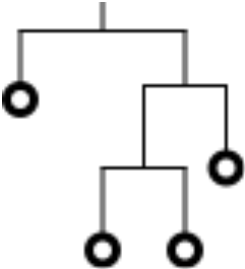










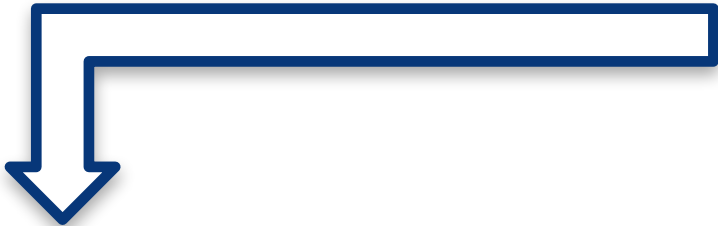


1) Bootstrap Aggregating ('bagging')

Sample n , with replacement

$$f_M(\mathbf{x}) = \sum_{i=1}^M T_i(\mathbf{x})$$





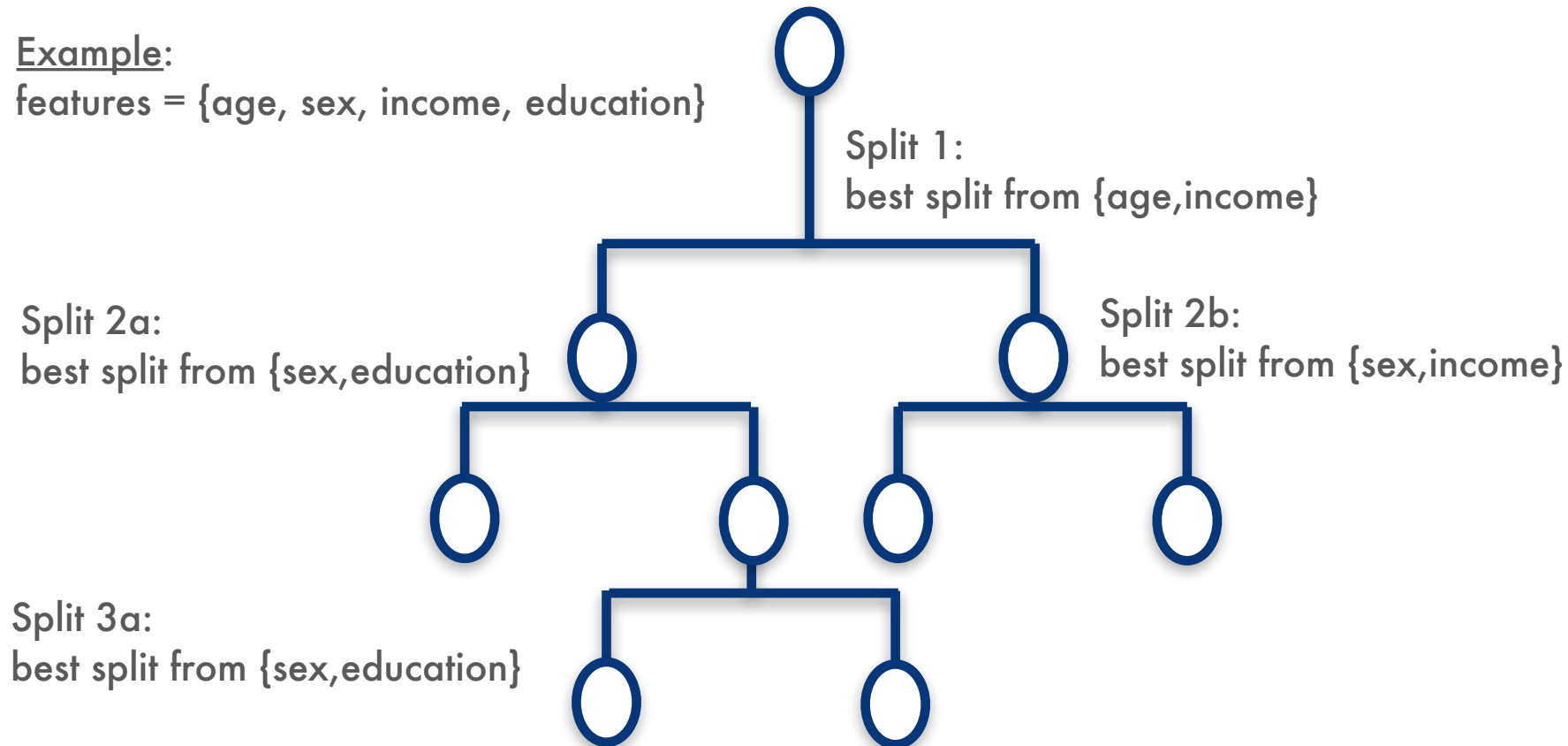
RF Tree Variance: Splits

2) Do not consider all of the features for each split

- default is often \sqrt{n}
- also speeds up computational time

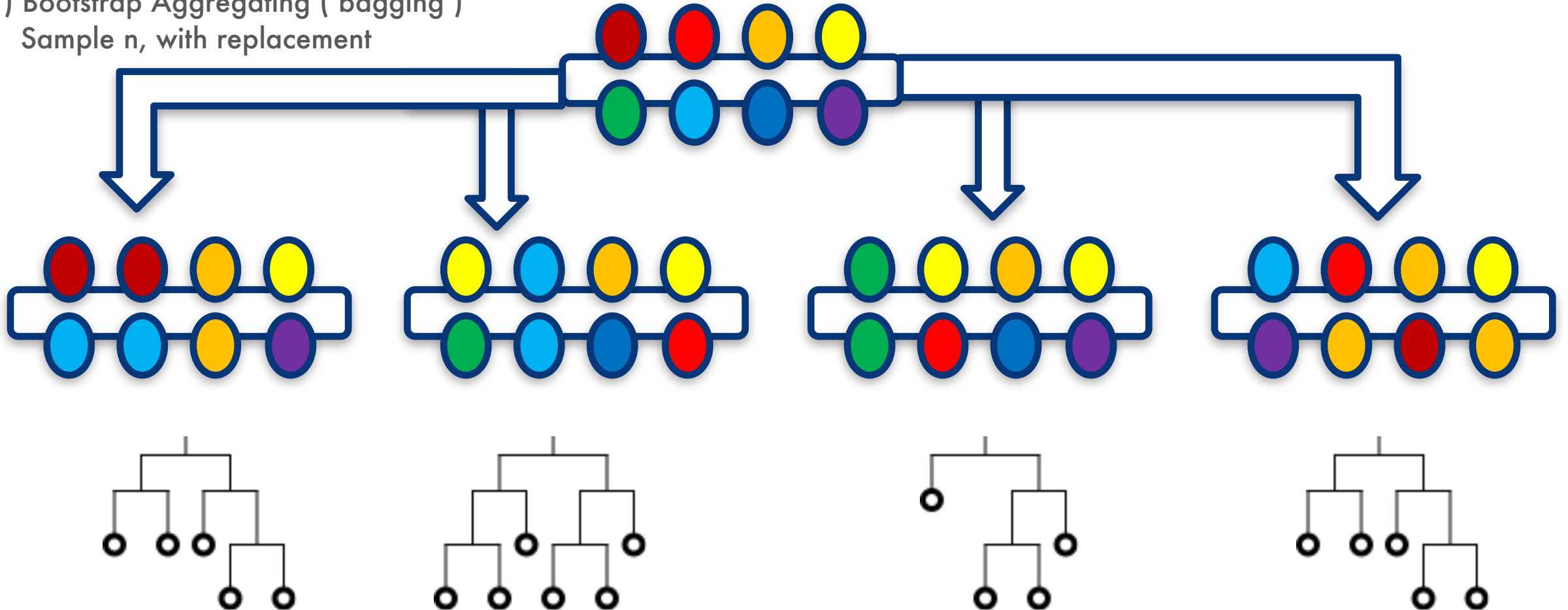
Example:

features = {age, sex, income, education}



RF Tree Variance: Bagging

1) Bootstrap Aggregating ('bagging')
Sample n, with replacement



$$f_M(\mathbf{x}) = \sum_{i=1}^M T_i(\mathbf{x})$$