Evolutionary / Genetic Algorithms

• Search for a learned concept using a method analogous to biological evolution.

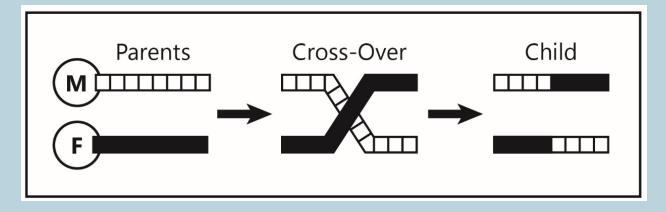
• Can be applied to many ways of representing concepts (e.g. rules, trees, neural-networks).





Genetic Algorithms for Concept Search

• Create new concepts to test using cross-over on concept representations.



• Keep a fixed population of concepts that fit the training data the best and iterate to simulate evolution until an adequate concept is found.





Weaknesses of Evolutionary Approach

• Natural selection can be a slow process and more directed approaches to finding effective concepts frequently outperform it.



