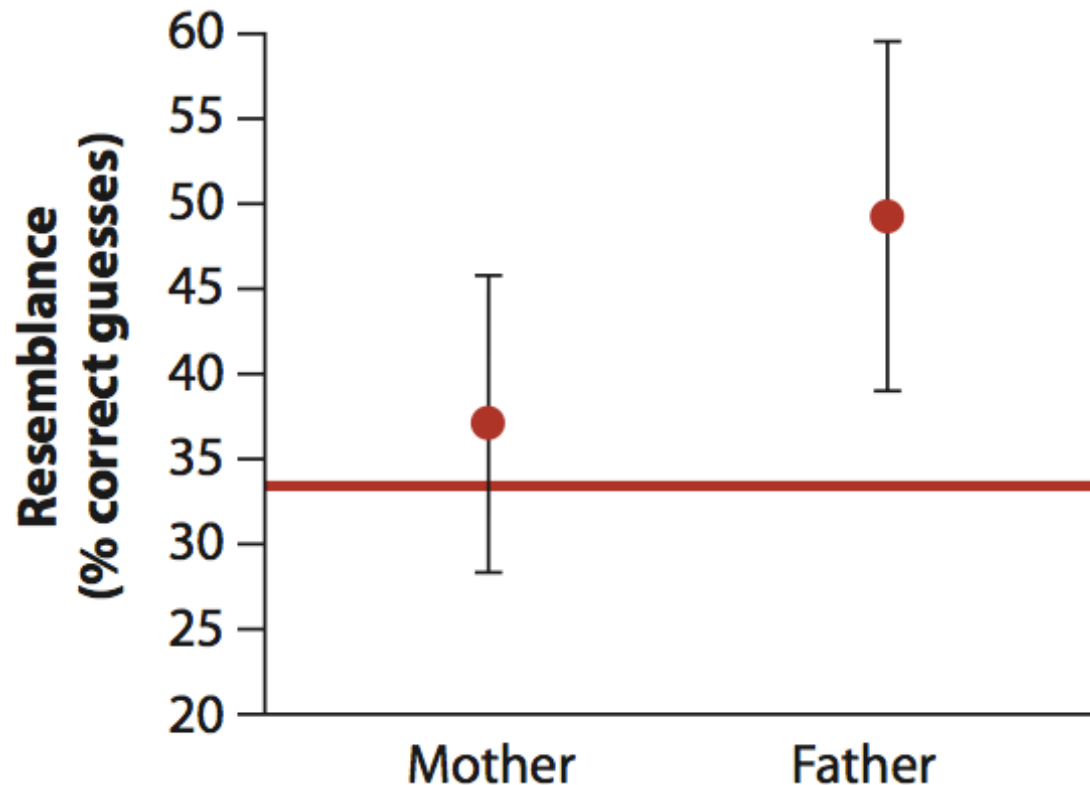
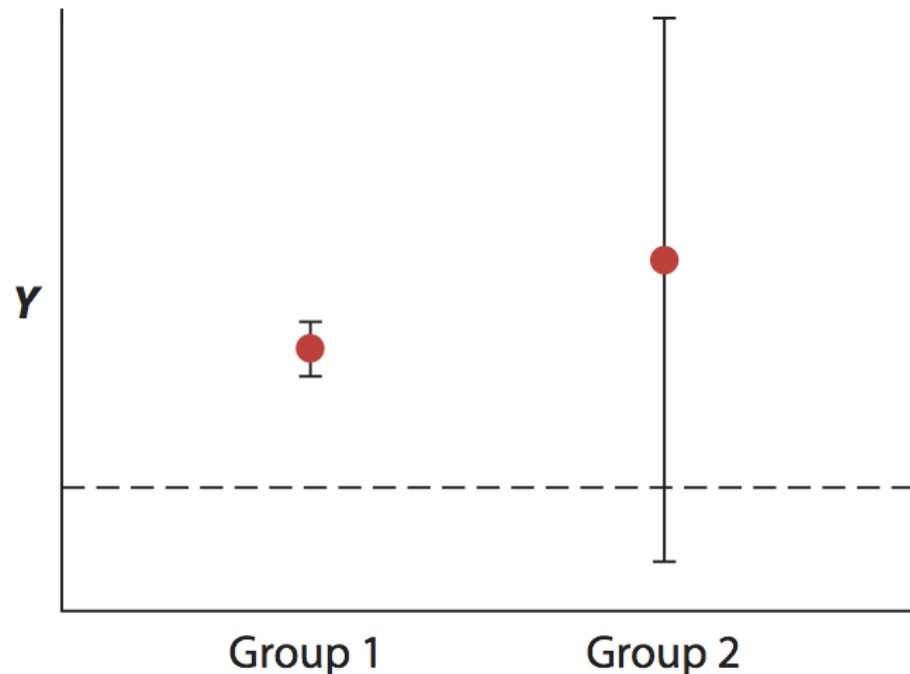


- Revisiting the sin of pseudoreplication:
  - A common mistake is failing to identify the independent units of replication
  - See Page 341 example:
    - Introduced salmon were grouped by streams
      - But each stream could have a different chance of survival due to geographic/environmental differences that are not based on the presence of Brook trout
    - Recognize that the stream is the independent sampled unit so there are 2 stream types, each with 6 : with Brook trout present (type A) and without Brook trout (type B)

- Fallacy of indirect comparison:
  - Both groups are compared to the same null expectation but not to each other
  - Example: resemblance of baby to mother and to father

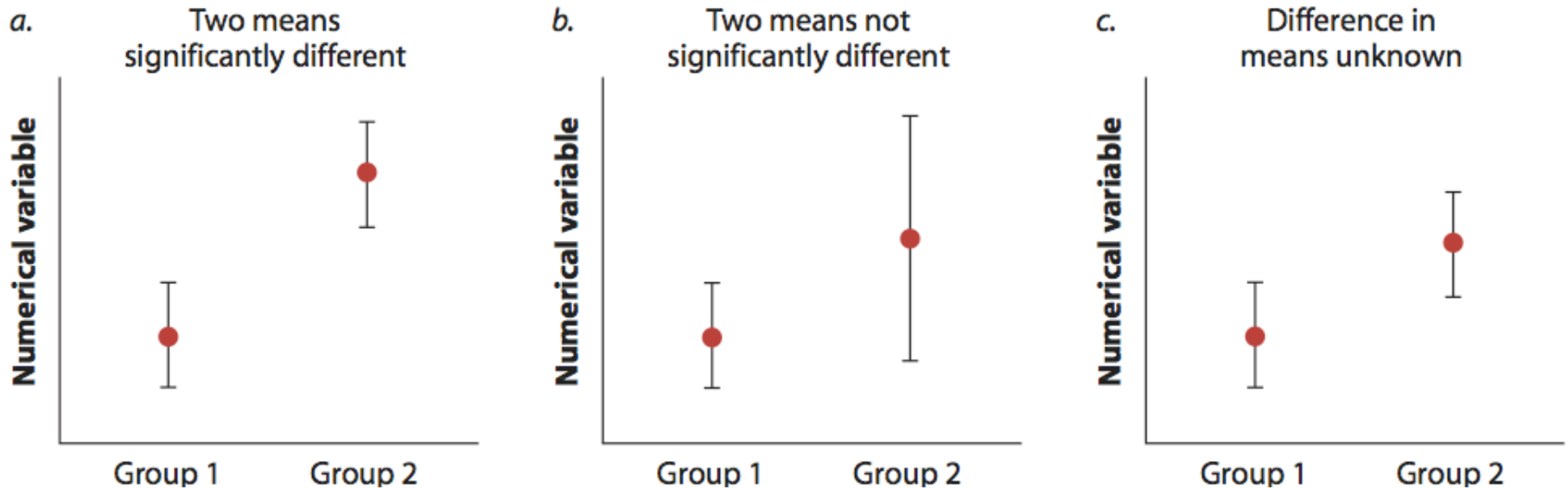


- Fallacy of indirect comparison:
  - More extreme Example:
    - “Group 1 is significantly different from a constant, but Group 2 is not. Therefore Group 1 and Group 2 are different from each other”



# What does an overlap in Confidence Interval mean?

Three possible scenarios:



\* 95% Confidence intervals are shown