1. The logical sequence of ideas:
   (a) We estimate a parameter of a population by using a statistic computed from a sample.
   (b) The problem: how big is the sampling error likely to be?
   (c) The sampling distribution tells us the complete story of the sampling error.
   (d) We are not omniscient – so we’ll never know the sampling distribution.
   (e) We don’t need to know everything about the sampling distribution, only something about its variation.
   (f) We need a model for the population.

2. Approach 1 (BC) – make a strong assumption about the nature of the population.

3. Approach 2 (AC) – the population looks like the sample.

4. The all-purpose bootstrap recipe:

   ```r
   do(boatloads) * statistic(model, data = resample(original_data))
   ```

   ```r
   r <- do(1000) * mean(~Mass, data = resample(dimes))
   histogram(~result, data = r)
   densityplot(~result, data = r)
   ```

5. The standard error of a statistic

   ```r
   sd(~result, data = r)
   ```

   [1] 0.003949

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