



# Three Ways to Subset

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# Logic

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# Logical Summaries

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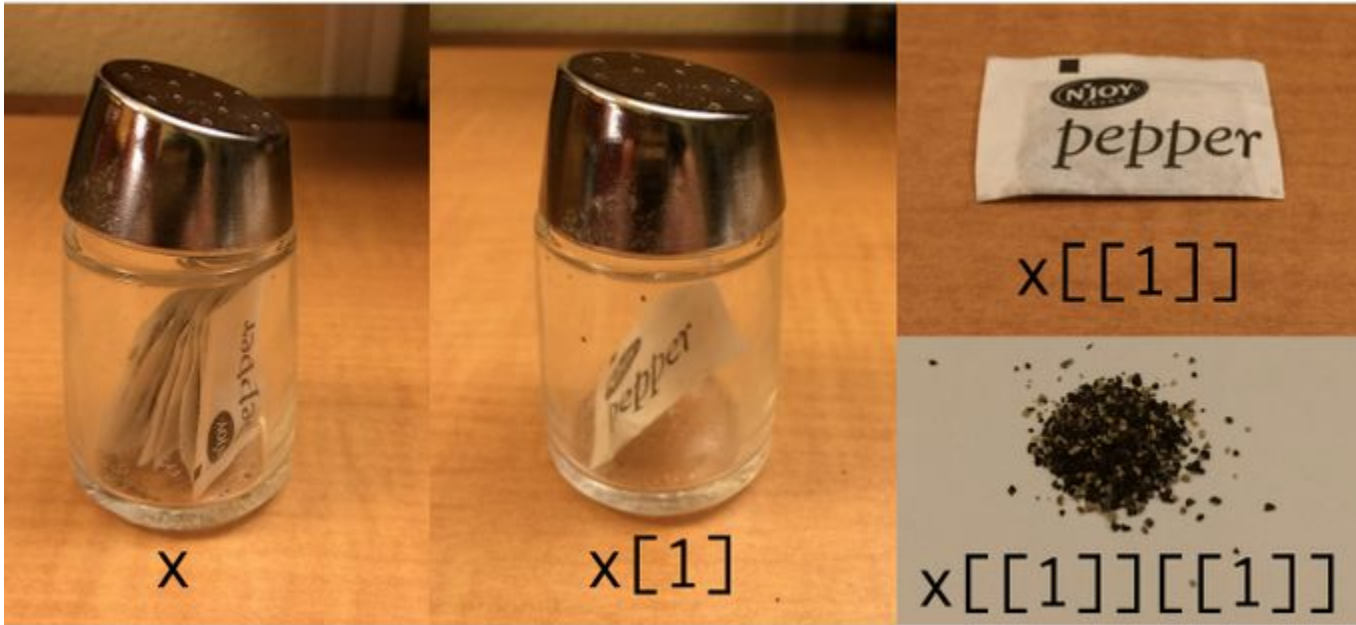


# Subset vs. Extract

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# Containers



Source: [https://pbs.twimg.com/media/CO2\\_qPVWsAAErbv?format=png&name=small](https://pbs.twimg.com/media/CO2_qPVWsAAErbv?format=png&name=small)

# Subset vs. Extract

- The “single square bracket” subset operator `[`
  - Selects any number of elements by position, name, or condition.
  - Usually keeps the container.
  - Returns `NA` for invalid elements.
- The “double square bracket” extraction operator `[[`
  - Selects exactly one element by position or name.
  - Always drops the container.
  - Raises error for invalid elements.



# Subsets of Data Frames

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