

# Methods: Description

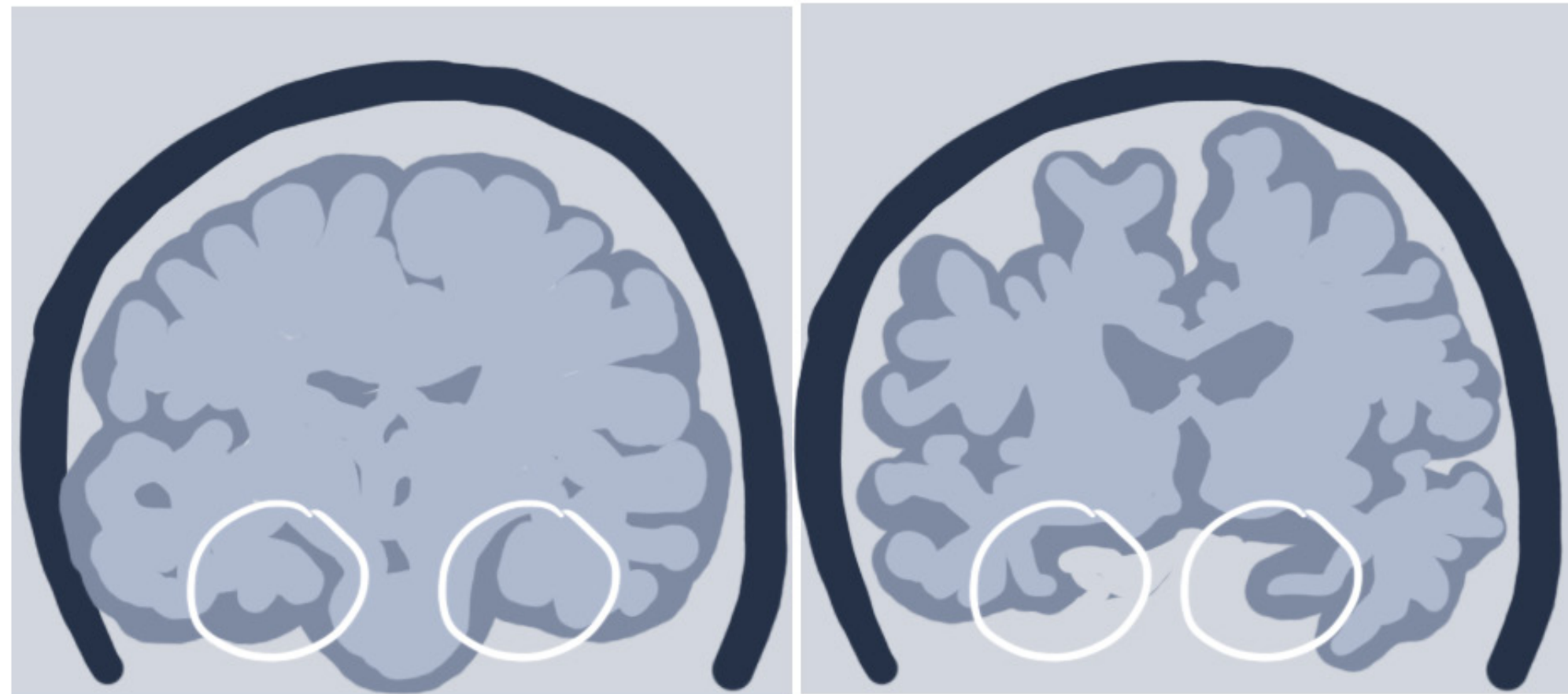


- Explain what a case study is.
- Explain what naturalistic observation is.
- Explain what a survey is and how wording can strongly affect the results of a survey.
- Explain what random sampling is.

# Learning Goals

# The Case of H.M.

H.M. received a bilateral temporal lobectomy--the removal of the medial portions of both temporal lobes, including most of the hippocampus and amygdala, and some adjacent cortex.



Normal

H.M.

## Case Studies

# The Case of H.M.

**Retrograde amnesia:** Inability to retrieve memories for some delimited period of time prior to that time at which the brain damage occurred. H.M. had difficulty remembering the events in the 2 years prior to his surgery. He had a **temporally-graded** retrograde amnesia.

**Anterograde amnesia:** Inability to form memories of events occurring after the time at which the brain damage occurred. H.M. had a severe anterograde amnesia. He could remember events for only a very short time.

## Case Studies

# The Case of H.M.

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(H.M.; quoted in Milner et al., 1968)

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“His experience seems to be that of a person who is just becoming aware of his surroundings without fully comprehending the situation, because he does not remember what came before.” (Milner et al., 1968)

## Case Studies

In general, case studies can suggest useful theories and hypotheses, but other methods are better suited to testing those hypotheses.

# Case Studies



The recording of behavior in it's natural environment is known as **naturalistic observation**.

An example: Suppose we wanted to know what high school students do in their every day lives. We could equip them with sound recorders or video cameras and follow them for a period of time.

**Naturalistic Observation**





A researcher might use a **survey** when they want to predict the attitudes or behaviors of a **population** based on a **representative sample**.

For example, if we wanted to know how many people believe in UFOs, we might create a survey that asks questions related to beliefs in UFOs and then distribute it to a representative sample of the population.



# Surveys

# Wording Effects

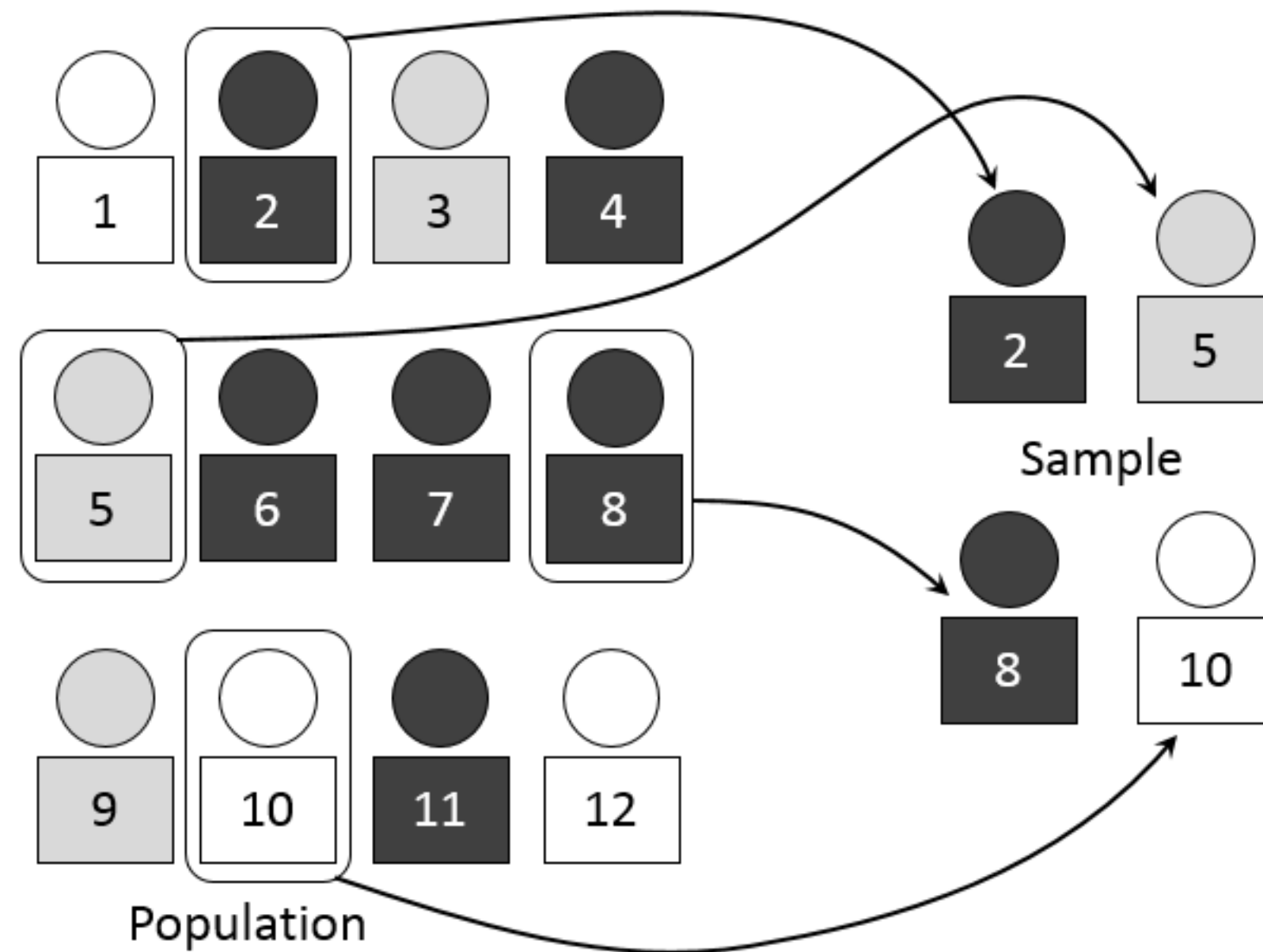
The way you word the questions on a survey can have a major effect on the outcome of the survey.

For example, which of the following questions would you be more likely to answer yes to?

1. Do you believe the government should spend more money on aid to the needy?
2. Do you believe the government should spend more money of welfare?

## Surveys

The best basis for generalizing from a finding (e.g., a survey) is if the sample the finding is based on is representative of the population we want to generalize to. Random sampling will typically give us a representative sample if the sample is sufficiently large.



# Random Sampling