Research Methods & Ethics

Descriptive Methods

Psychology is studied with descriptive methods.
Observed & recorded with some type of thought, belief, emotion, or behavior.

What are some benefits of studying this way?

The most common descriptive method is the Survey- where people report their thoughts, feelings, & behaviors

Survey

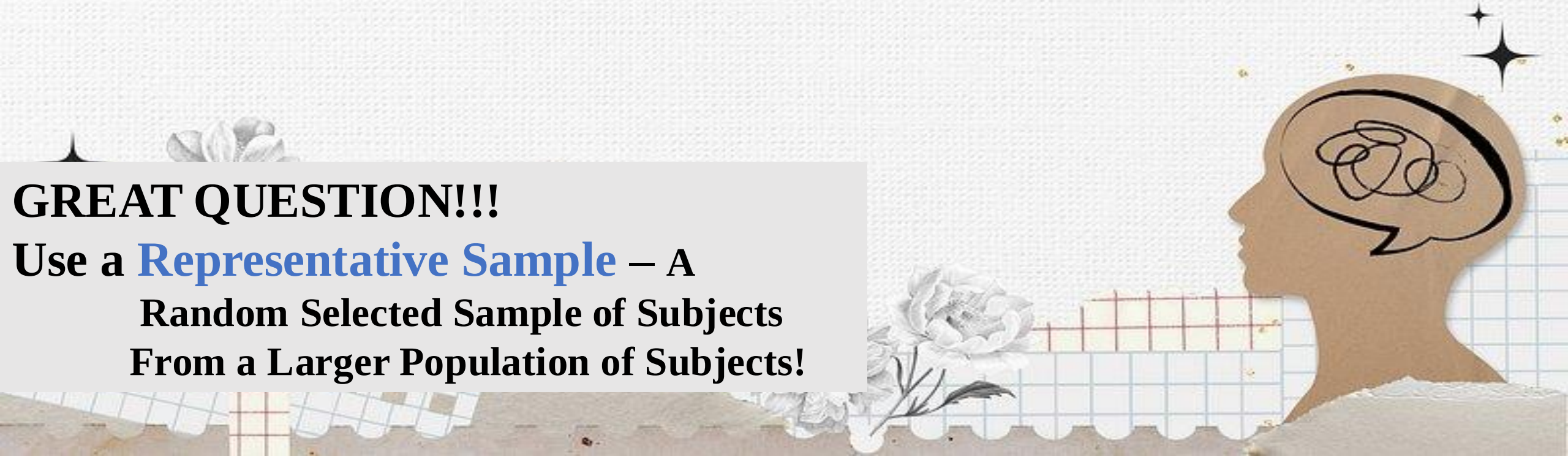
A Covert Private Way to Gain Information!

Advantage: Private Information From A LOT of People!

Disadvantage: Too MUCH Information & Sometimes Not Truthful

Survey

How Can I Limit The Number of People?



GREAT QUESTION!!!

Use a Representative Sample – A

Random Selected Sample of Subjects

From a Larger Population of Subjects!

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Case Study- Studying one or more people in great depth to understand what causes their behavior

Case Study!

Study of 1 Individual in Great Detail. You Learn as Much as Possible About The Person!

Advantage: TREMENDOUS Amount of detail!

Disadvantage: Can't Really Apply It To Other People

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Naturalistic Observation- Researchers observe & rate real-world interactions

Naturalistic Observation

Observation in Which You Observe The Subjects in a Natural Environment!

Advantages:

Realistic Picture of Subject

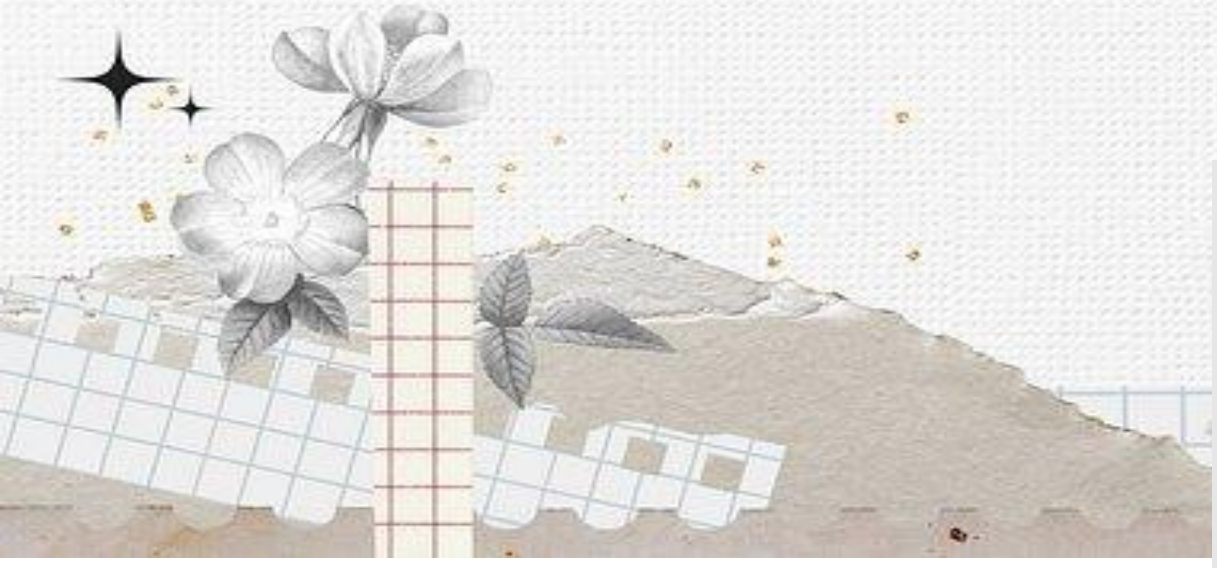
Naturalistic Observation

BEWARE OF OBSERVER EFFECT!
Subject Behaves Differently Because They Know They are Being Watched!

Disadvantages:
Observer Bias- Preconceived Notions of Behavior by Researcher

Two Ways to Complete This Observation…

1. Participant Observation- YOU become a participant in the study as well!

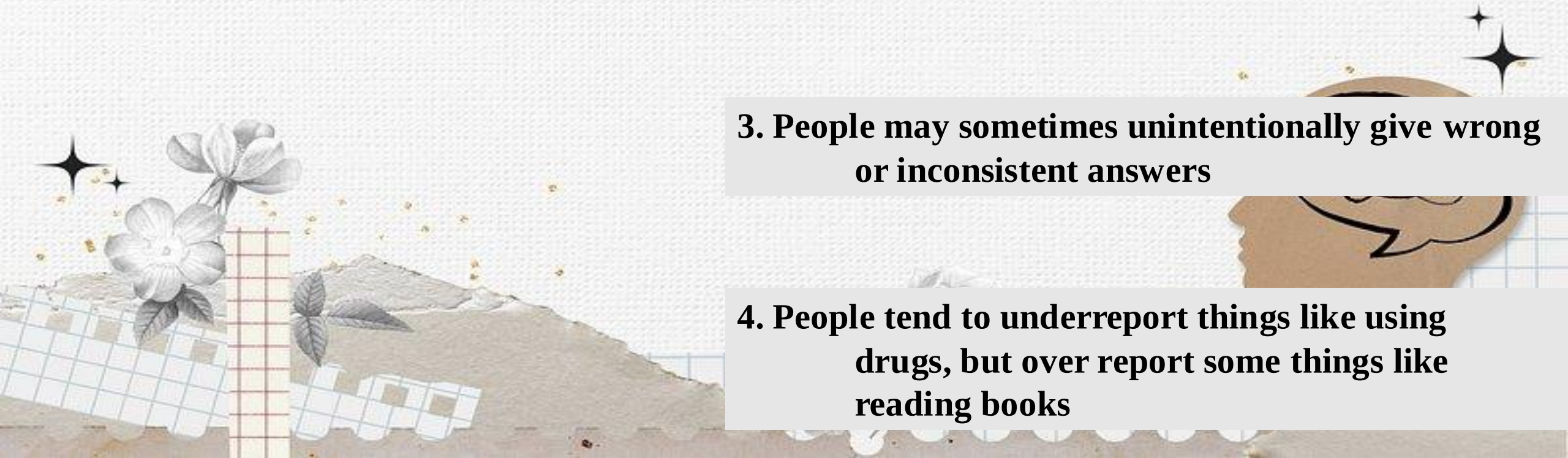


2. Blind Observations- People Do Not Know What the Research Question is & have No Idea How to Change Behavior!

Limits on Descriptive Methods

1. We tend to generalize on the basis of a single experience, but our attention may be drawn to unique examples that cause us to imagine a larger pattern

2. The presence of a person observing can sometimes influence the behavior



3. People may sometimes unintentionally give wrong or inconsistent answers

4. People tend to underreport things like using drugs, but over report some things like reading books

The Scientific Method & Psychology

There are 5 Steps to the Scientific Method of Psychology

1. **Formulate Question**
2. **Form a Hypothesis**
3. **Test The Hypothesis**
4. **Draw Conclusions**
5. **Report your Results!**

The Scientific Method & Psychology

What is a Hypothesis??????

Good Question!
It's a Tentative Explanation of a Phenomenon Based on Observations!

The Scientific Method & Psychology

FORMULATE A QUESTION!

Notice Your Surroundings & Address Something That You Would Like an Explanation For!

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FORM A HYPOTHESIS!

Form an educated guess on your surrounding. Put it into a Statement!

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TEST THE HYPOTHESIS

Choose an Experiment That Allows You to Properly Test Your Theory!

The Scientific Method & Psychology

DRAW A CONCLUSION!

Analyze Your Results & Come Up With a Theory or Prediction!

The Scientific Method & Psychology

REPORT YOUR RESULTS!

Let Other Researchers Know Your Findings & What You Found!

Indirect Observation

Technology has allowed researchers to gain insight into people's thoughts, feelings, & behavior

Indirect Observation- Gathering information about something without directly seeing it or experiencing it yourself.

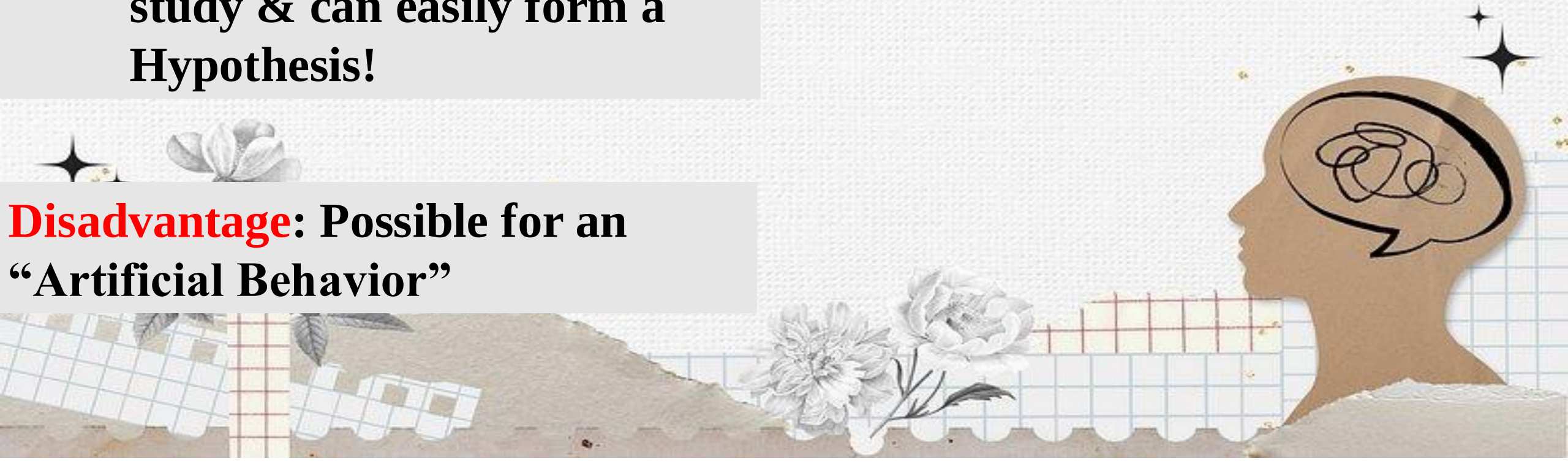
There are some issues in how people self-report!

Laboratory Observation

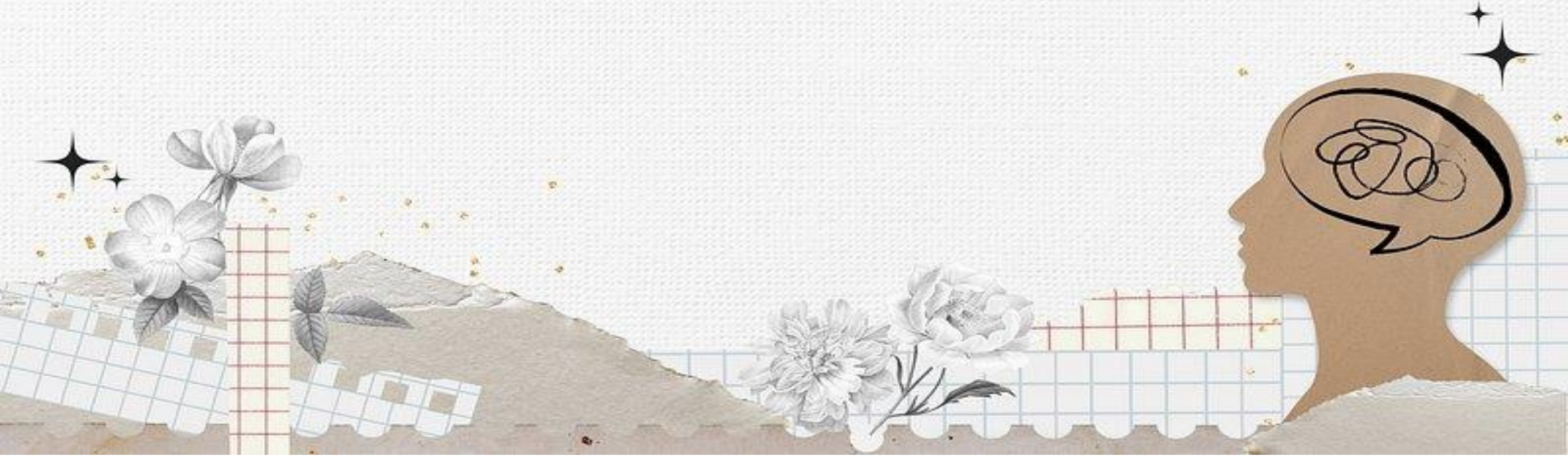
YOU Bring a Subject to the Research Equipment!

Advantage: YOU can control the study & can easily form a Hypothesis!

Disadvantage: Possible for an "Artificial Behavior"

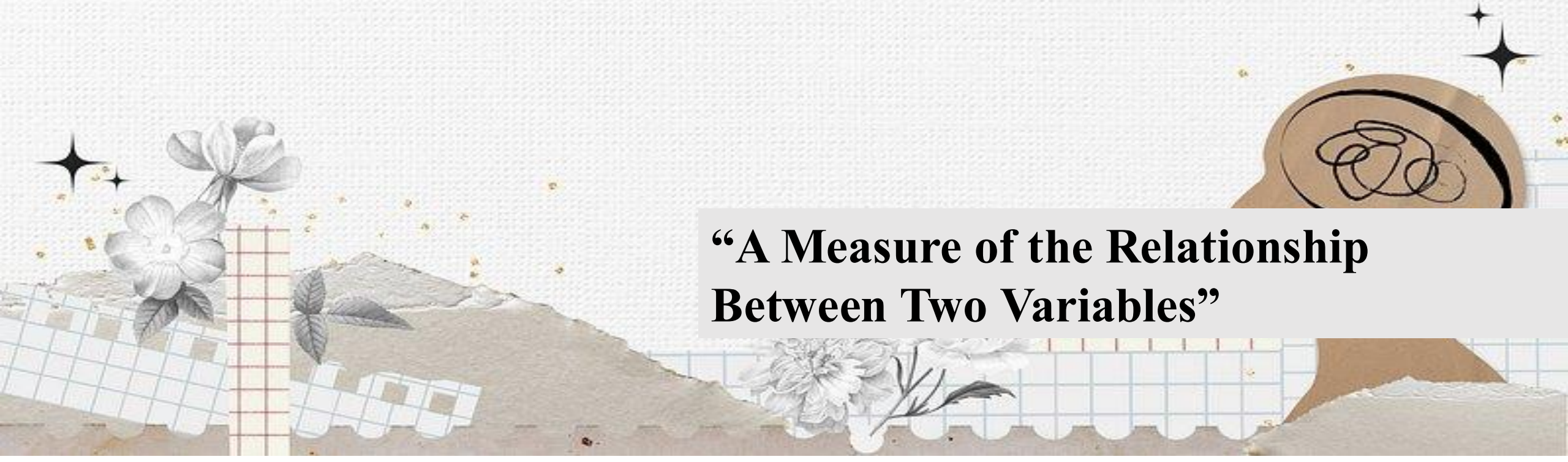


Phineas Gage



Correlations

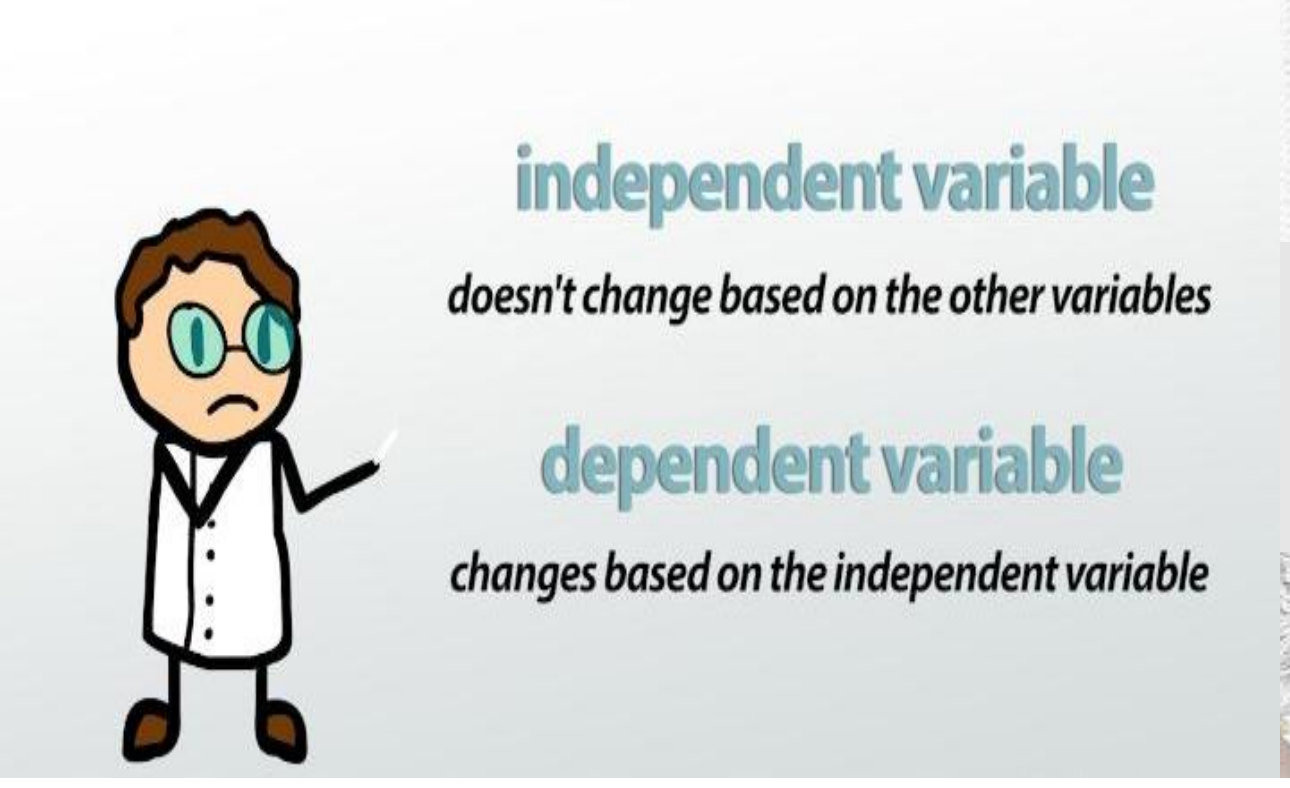
Find Relationships-Statistical Technique to find patterns!



“A Measure of the Relationship Between Two Variables”

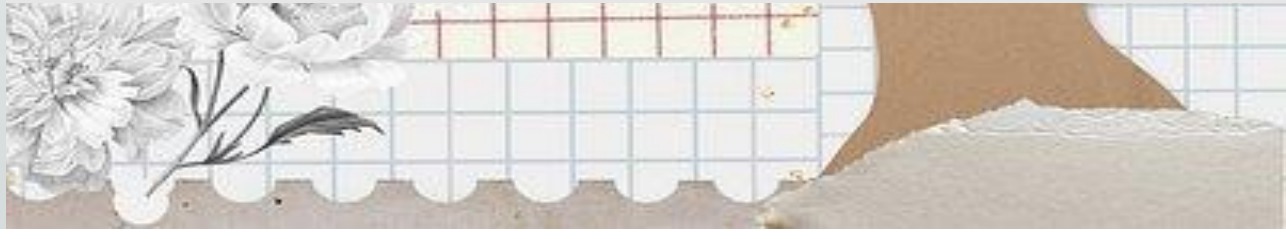
Correlations

WAIT! WHAT'S A VARIABLE?!



GREAT QUESTION!!!

A Variable is Anything That Can Change or Vary a Study!



Experiment

A Deliberate Manipulation of a Variable to See if Corresponding Changes in Behavior Result in Allowing a Determination of Cause & Effect!

Operational Definition- A Variable of Interest That Allows It To Be Measured!

What?! There are Different Variable Types?

Independent Variable- Manipulated by the Researcher, Independent of Participant

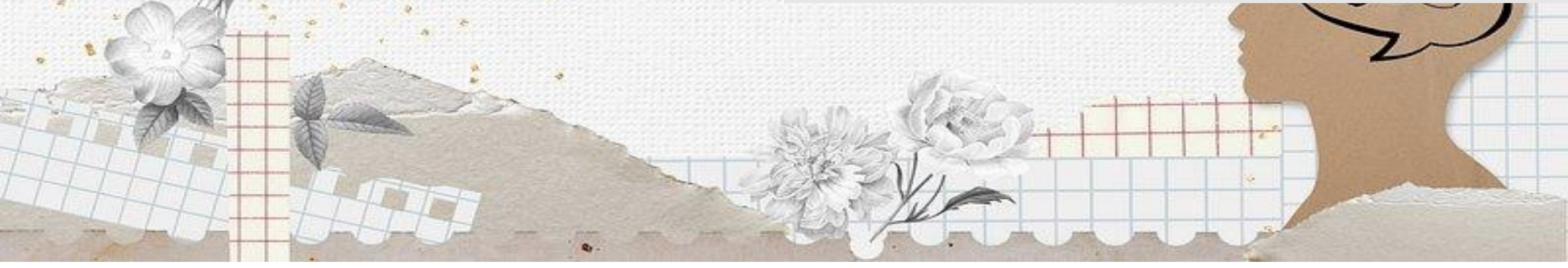
Dependent Variable- Participant's Behavior Is Dependent And Is Needed!

Confounding Variable- Variables That Interfere With Each Other.

Experimental Groups

Participants Who Are Subjected To The Independent Variable

Control Group- Participants who are not exposed!



That's Sooooo Random!

Random Assignment- Ensure control over interfering, *extraneous variables

****extraneous-State or Environment That Participants Are Placed In For Experiment**

Expectations

Placebo Effect- **Expectations & Biases of Participants in a Study Influence Behavior.**

Experimenter Effect- **Behavior of the Experimenter Caused Participants to Change Responses**

Blind Studies

Single-Blind Study- **Participants are "Blind" to treatment they receive!**

Double-Blind Study- **Subject & Researcher Don't Know Who Got What Test!**

Ethical Guidelines For Research

1. Rights & Well-Being of Participants Must Be Weighed Against A Study's Value

2. Participants Must Be Allowed To Make An Informed Decision About Participation

3. Deception MUST be justified

4. Participants May Withdraw From Study At Anytime!

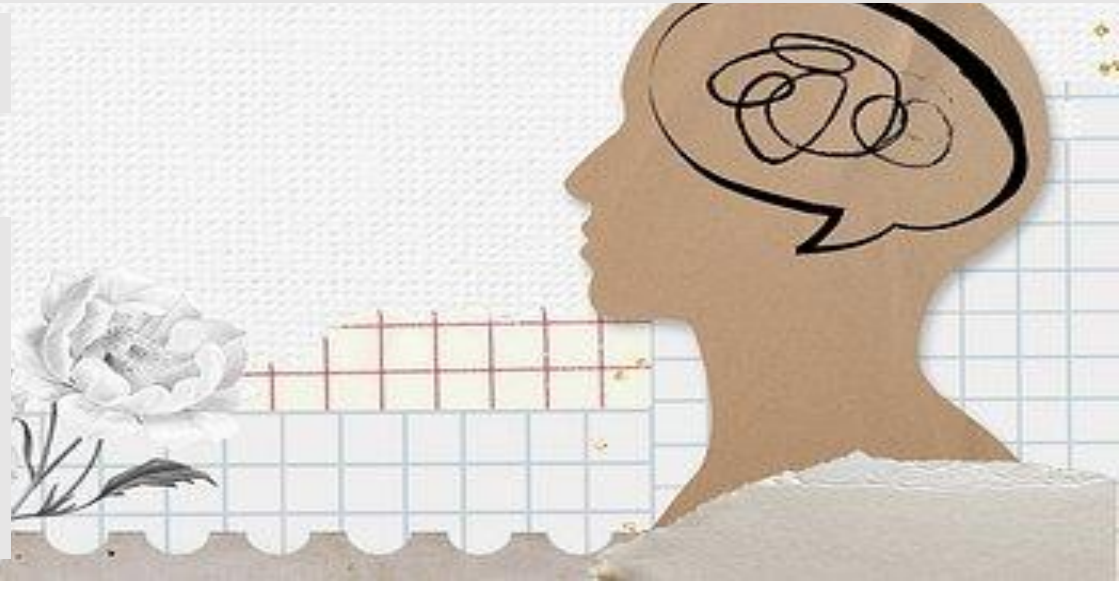
Ethical Guidelines For Research

5. Participants Must Be Protected From Risks or Told Explicitly of Risks!

6. Investigators Must Debrief Participants, Telling the True Nature of the Study & Expectations of Results!

7. Data MUST Remain Confidential

8. If For Any Reason A Study Results in Undesirable Consequences, Researchers is Responsible For Detecting & Removing/Correcting Consequences



Why Use Animals?

-Animals Lives Shorter Lives & Easier to Control.

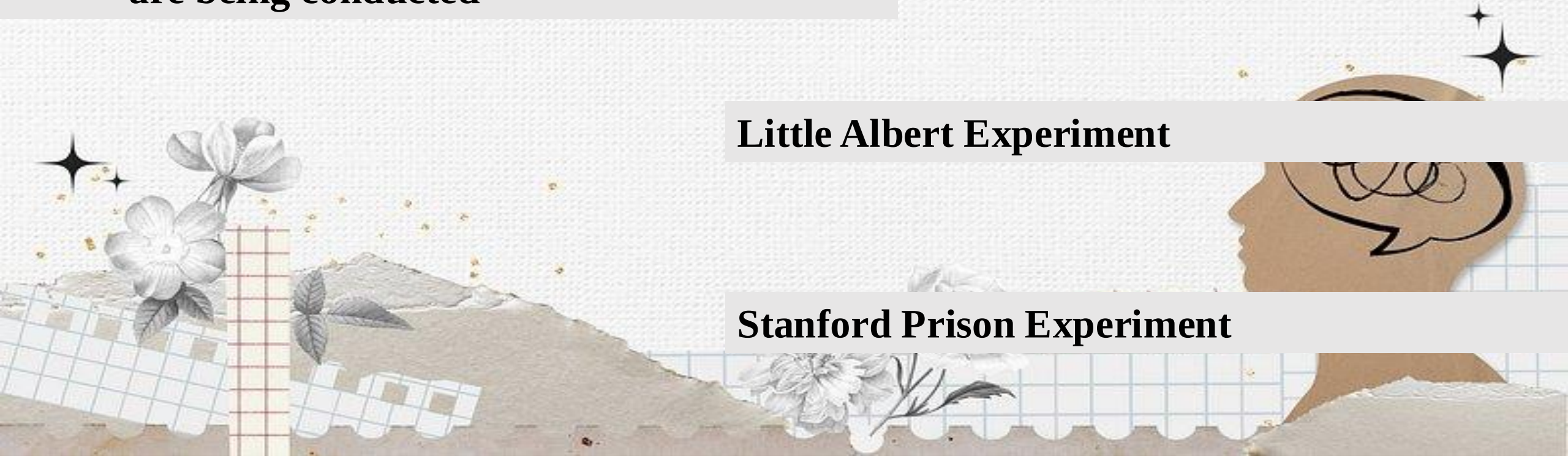
-Animals SHOULD AVOID Unnecessary Pain or Suffering.

Animals Make Up 7% of All Studies.

Ethical Concerns

National Research Act of 1974- All studies conducted by researchers must be evaluated by an ethics boards

The board can change procedures on how studies are being conducted



Little Albert Experiment

Stanford Prison Experiment