The Possible Role of Mental Influence in Evidence-Based Medicine

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My Background

- PhD in Statistics

- Academic statistician my whole career

- One area of my research is statistical evaluation of parapsychology (psi research)
  - One year as visiting scientist at parapsychology lab at SRI International
  - Report for US Congress evaluating the US government's psi research program
  - Have written many papers discussing statistical issues with psi research

My Conclusion to Congress

"Using the standards applied to any other area of science [that uses statistics], it is concluded that psychic functioning has been well established."

Main Idea for This Talk

- Design and statistical analyses of clinical trials rely on certain assumptions, such as:
  - It is possible to randomly assign participants to treatments groups
  - Double-blind studies are possible
  - No one can know the results of an experiment before the experiment is conducted
  - Results are independent between unrelated people
- <u>Suppose</u> some results claimed by research in parapsychology are real.
- In that case, some of the assumptions made in clinical trials research might be wrong.

Some possible parapsychology effects

Note: I apologize for using outdated shorthand terms for these effects, for convenience.

- Information transfer, i.e. mind to mind communication, between people might be possible ("telepathy")
- People might know things without use of their regular five senses, even if no other person knows them ("clairvoyance")
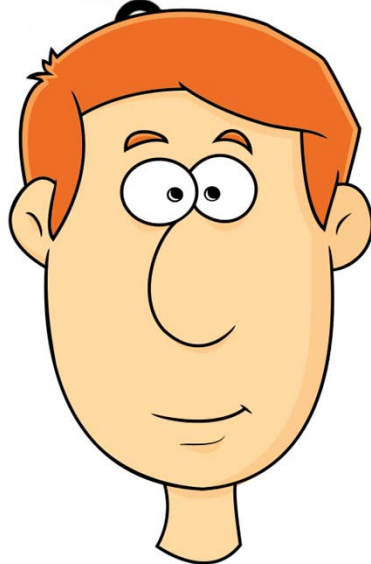- Information from the future might be available now ("precognition")
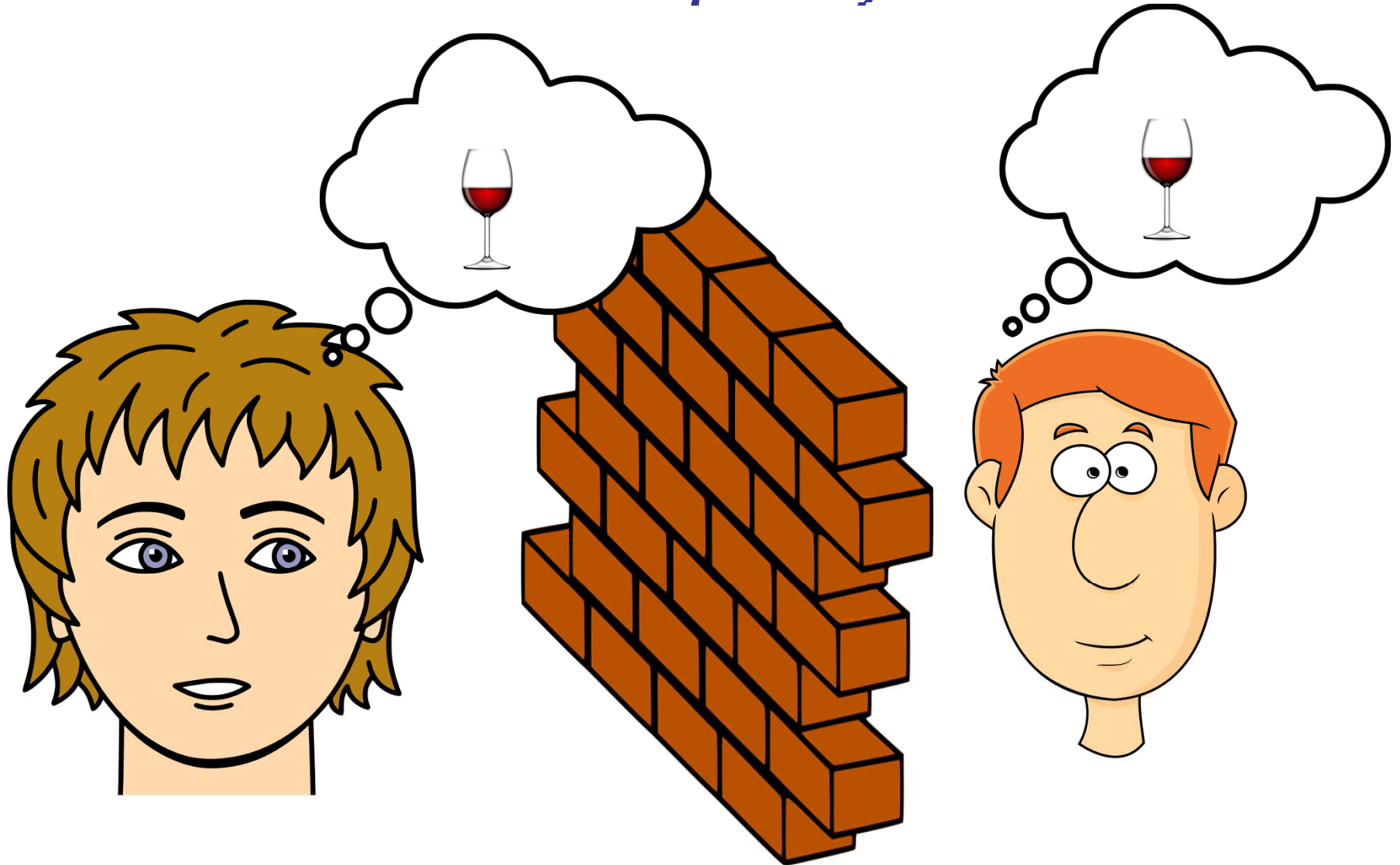
Clairvoyance
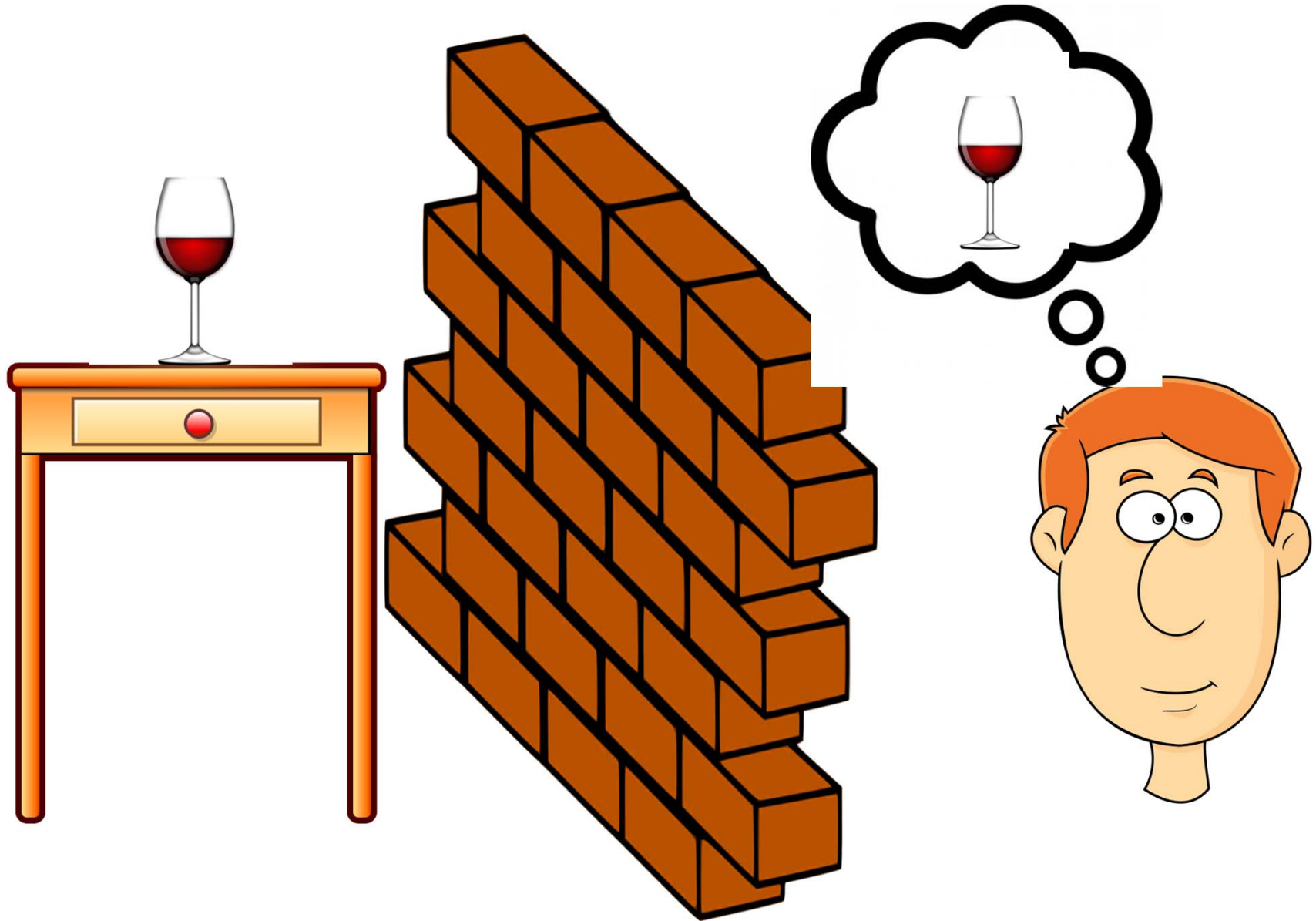
Precognition

11:00

11:30

Psi-based healing/physiological effects

- Remote healing might be possible
- DMILS = distant mental interaction between living systems (Stefan Schmidt will talk about evidence for this in his talk)
- Presentiment = people's physiology might change when something is about to happen to them, even without conscious awareness

More possible parapsychology effects

- **It might be possible to either influence or predict random sequences ("psi-biased randomization")**

- One possible mechanism – psi information about when a favorable random sequence is to occur

- Simplistic example:
  - Random string of heads and tails, want more heads, need 10 trials. Can't see what's coming, choose arbitrary time to start.

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Start here

Simple Drug/Placebo Clinical Trial

- A participant enrolls in the study
- Randomly assign the participant to receive
  - Active drug ("treatment group")

    or

  - Placebo ("placebo group" or "control group")
- Measure a health outcome on each participant
- Compare health outcome for the two groups
- Conclude the drug "works" if the drug group does statistically better than the placebo group for the health outcome

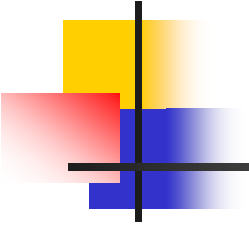# How Parapsychology Might Challenge the Design Phase

- Participant subconsciously knows when to enroll in the trial to get the effective treatment.

- Experimenter subconsciously knows how healthy someone is and randomizes so that healthier participants get the treatment instead of the placebo.

- Experimenter influences or predicts the randomization string to put healthier participants in treatment group. (See next 2 slides.)
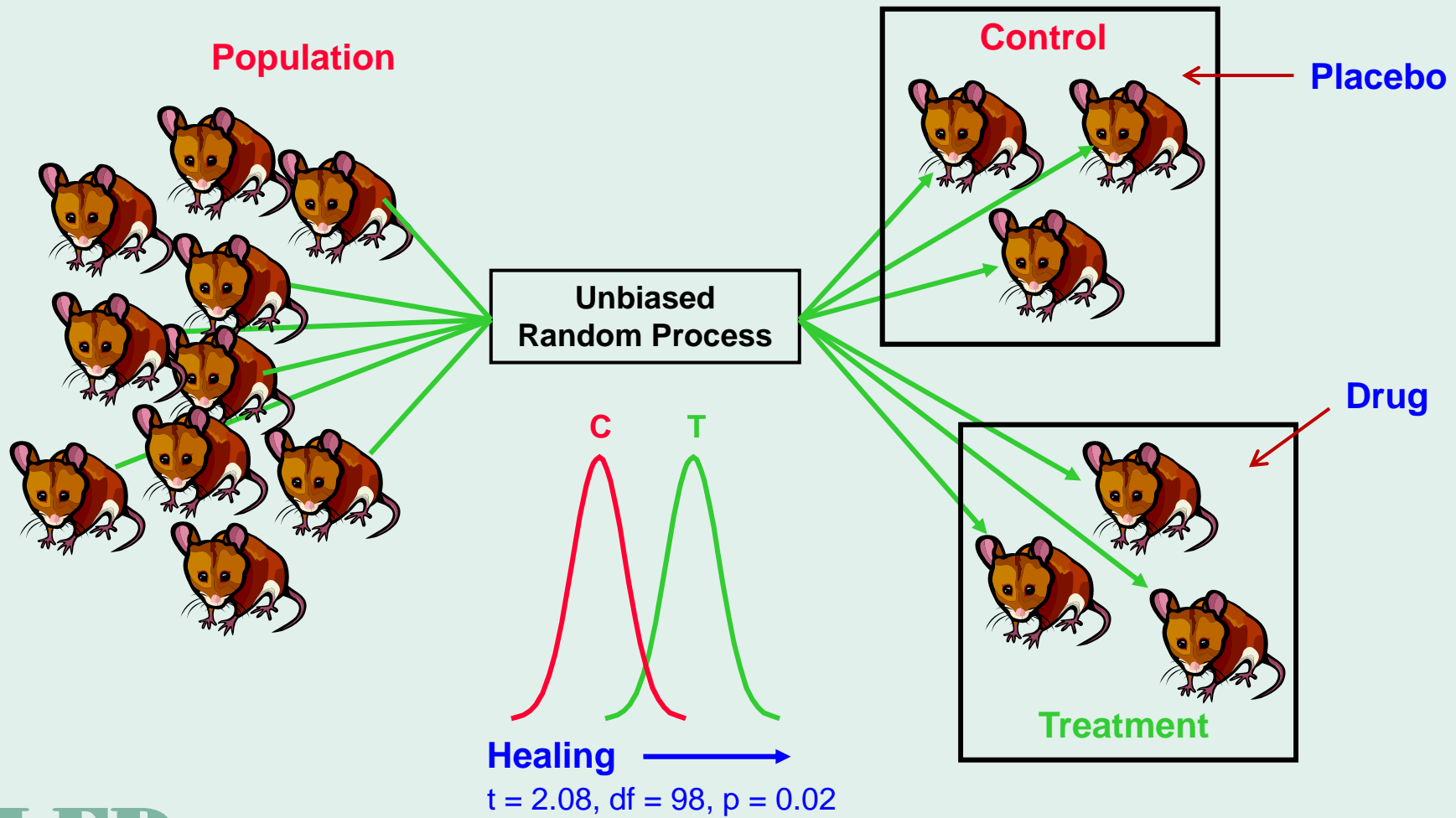
PSI-BASED RANDOM PROCESS
(HEALING IS MIMICKED)
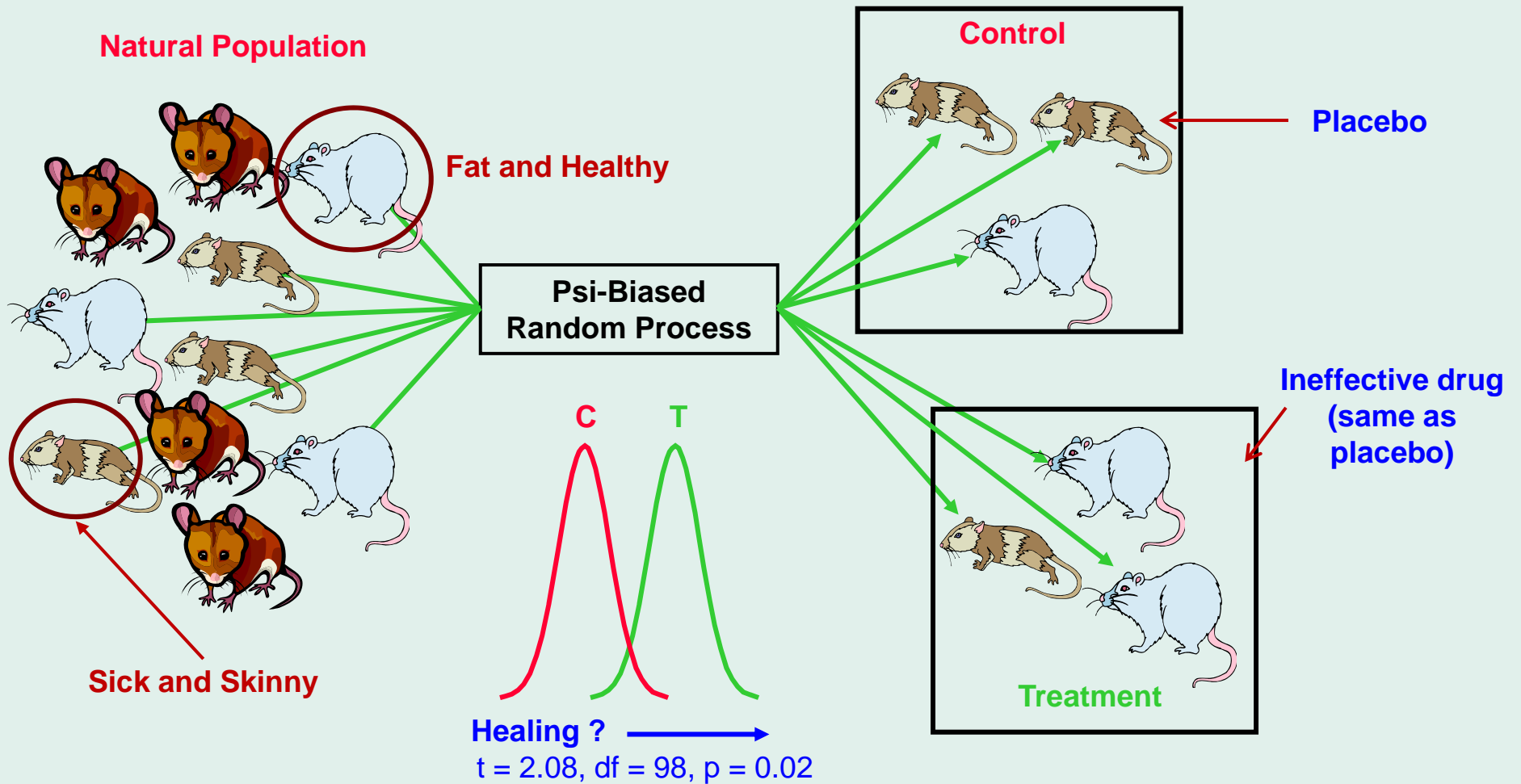
How parapsychology might rule out double-blind conditions

- If *anyone* knows who is in the placebo group, participants might subconsciously use telepathy to find out, and react the same as if they consciously knew.

- Even if only a computer knows who is in the placebo group, participants could use clairvoyance.

- If participants subconsciously know which group they're in, they could communicate this to the evaluator and change the evaluation.

- Eventually participants know which group they're in. They could use precognition to know sooner.

How parapsychology might influence healing

- The researcher could subconsciously know who has treatment/placebo, and (subconsciously) use distant mental interaction to affect health (good or bad).

- The researcher could know who is taking the drug, and use "experimenter effect" to activate natural self-healing in those participants.

Other Possibilities

- There could be a "group mind" effect that causes the whole experiment to succeed or fail.
  - Related to this is the idea that measurements across participants might not be independent.
- The effect of a drug may not remain constant across time. Maybe there is a "group habituation" effect that decreases effectiveness of a drug over time.

Summary of what could go wrong

- It might be impossible to hide information (so no blind or double-blind experiments).

- It might be impossible to truly randomly assign participants to groups.

- It might be impossible to separate the effects of a drug from the effects of self (and other) healing, with differences based on "knowing" through psi-mediated information.

Recommendations

- In the randomization phase, use a new seed each time

- Use matched pairs or blocking to get equivalently healthy (and unhealthy) participants into each group

- Psi effects are small (if real), so if a trial shows medium or large effects, it's unlikely that psi is a major factor.

QUESTIONS?

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