

$$H_0: p = 0.05$$

$$H_A: p < 0.05$$

WEDNESDAY, MARCH 6, 2019

## Warm-up

- Pick the best answer – justify your response.

A skeptical paranormal researcher claims that the proportion of Americans that have seen a UFO,  $p$ , is less than 5%. Identify the Type II error in this context.

- A) The error of rejecting the claim that the true proportion is at least 5% when it really is at least 5%.
- B) The error of accepting the claim that the true proportion is at least 5% when it is actually less than 5%.
- C) The error of accepting the claim that the true proportion is at least 5% when it really is at least 5%.
- D) The error of failing to reject the claim that the true proportion is at least 5% when it is actually less than 5%.
- E) The error of rejecting the claim that the true proportion is less than 5% when it really is less than 5%.



Fail to reject the null when it is false

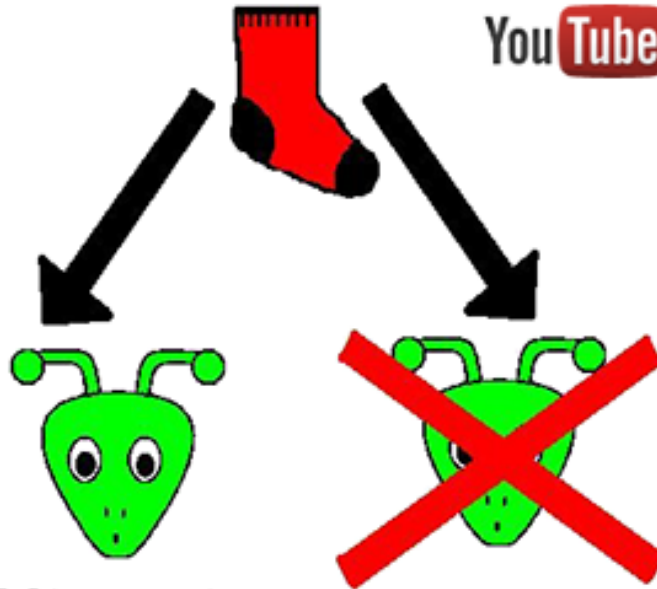


TEST

Q. Where have all my socks gone?



TEST



**Alternate Hypothesis**

Extra-terrestrial beings have transported themselves into my house in order to steal my socks.

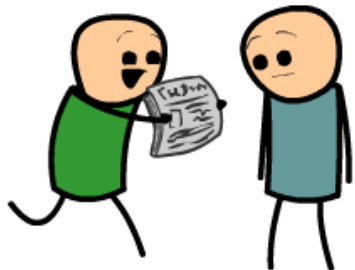
**Null Hypothesis**

Aliens are not to blame. There is some other explanation for the disappearing socks.

I HEARD YOU UPPED YOUR SAMPLE SIZE.

MORE POWER TO YOU.

HOLY ҉҉҉, MAN!!  
LOOK AT THIS!!



"STUDY FINDS 50% OF  
PEOPLE BORED BY  
STATISTICS."

