

# Using the Powerful **Anchoring Heuristic** to Address Effect and Variability

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Numbers, symbols...“no thanks,” say  
many students....

$\eta$   $\mu$   $\Sigma$   $\delta$   $\sigma$

Students might really resist inference.

$$t(13) = 5.00,$$

$$p < .001$$

# One recommendation: A live experiment:



- What is the mean age of a Pope at the time of his coronation? Is it younger or older than 36 years (half of students)? 96 years (half of students)?

<b>age 36</b>	<b>age 96</b>
30	80
75	62
62	82
55	82
47	84
60	70
55	84
60	
<b>55.5</b>	<b>77.7</b>

# One recommendation: A live experiment:



- What is the mean age of a Pope at the time of his coronation? Is it younger or older than 36/96?

$t(13) = 3.85, p < .002;$

Variability undermined

“extreme” significance

expected.

age 36	age 96
30	80
75	62
62	82
55	82
47	84
60	70
55	84
60	
55.5	77.7

# One recommendation: A live experiment:



- What is the mean weight of a rhinoceros? Is it more or less than 250 lbs (half of students)? 25,000 lbs (half of students)?

<b>250 lbs</b>	<b>25000 lbs</b>
2350	20000
700	20000
2000	10000
1000	16000
1000	20000
420	18360
2000	5000
	40000
<b>1352.9</b>	<b>18670.0</b>

# One recommendation: A live experiment:



- What is the mean weight of a rhinoceros? Is it more or less than 250 lbs/ 25,000 lbs?

$t(13) = 4.45, p < .001;$

Variability undermined

“extreme” significance

expected.

250 lbs	25000 lbs
2350	20000
700	20000
2000	10000
1000	16000
1000	20000
420	18360
2000	5000
	40000
1352.9	18670.0



## Take-home:



- Fun experiment (giggles).
- Shows strong basic effect.
- Allows discussion of variability in inference.
- Allows discussion of outlier treatment.
- Student remembers own estimate.