

# Fallacies of Weak Induction (3.3)

- Appeal to Unqualified Authority  
(Argumentum ad Verecundiam)
  - Appeal to Ignorance  
(Argumentum ad Ignorantiam)
- Hasty Generalization (Converse Accident)
  - False Cause
  - Slippery Slope
  - Weak Analogy

# Appeal to Unqualified Authority (Argumentum as Verecundiam)

- X is true because authority Y says it is, but Y is not an authority on X.
- In a fallacious appeal to authority, "some source of authority is introduced, not because it is necessary or even relevant, but, rather, because of the persuasive force that attaches to the very ideas of expertise." (Stephen S. Carey, *The Uses and Abuses of Arguments*)
- Appealing to someone's sense of patriotism or general beliefs of the masses is a way of attempting to manipulate someone into a belief rather than prove the claim at issue is true.
- There are legitimate appeals to authority, as when I explain that I am taking a certain medication because my doctor prescribed it for a diagnosed condition. There are two conditions that a legitimate appeal to authority must meet:
  - There must be an imperative to rely on the expert advice.
  - The advice given by the expert must fall within his or her area of expertise.

# Appeal to Authority Examples

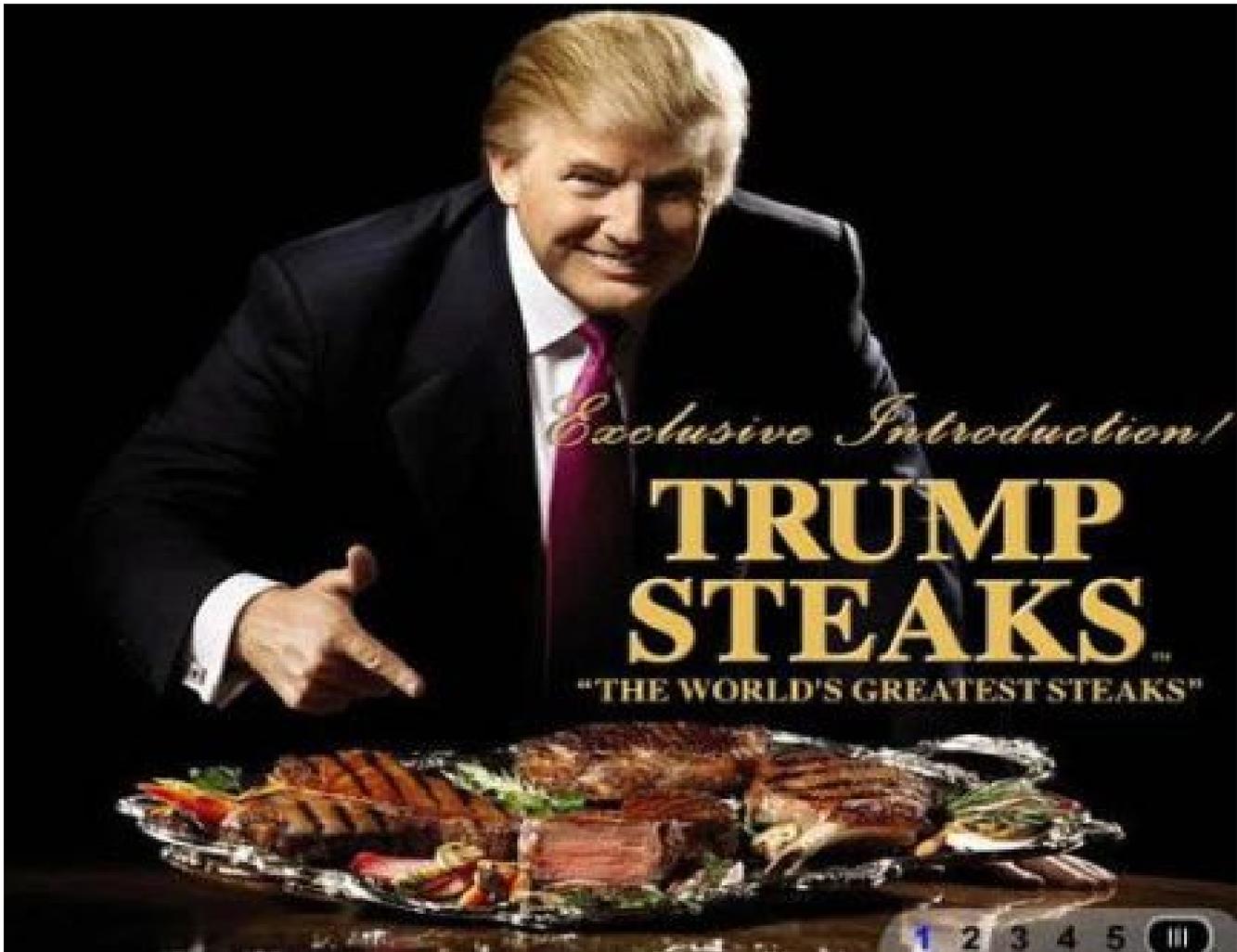
- “Honestly, I think we should just trust our President in every decision that he makes, and we should just support that.” (Britney Spears, answering a question from [at the time,] CNN’s Tucker Carlson, on whether or not she supports the war in Iraq.)
- “Well, I did stay at a Holiday Inn Express” (Person who stayed at a Holiday Inn Express)
- James W. Johnston, Chairman of R. J. Reynolds Tobacco Company, testified before Congress that tobacco is not an addictive substance and that smoking cigarettes does not produce any addiction. Therefore, we should believe him and conclude that smoking does not in fact lead to any addiction.

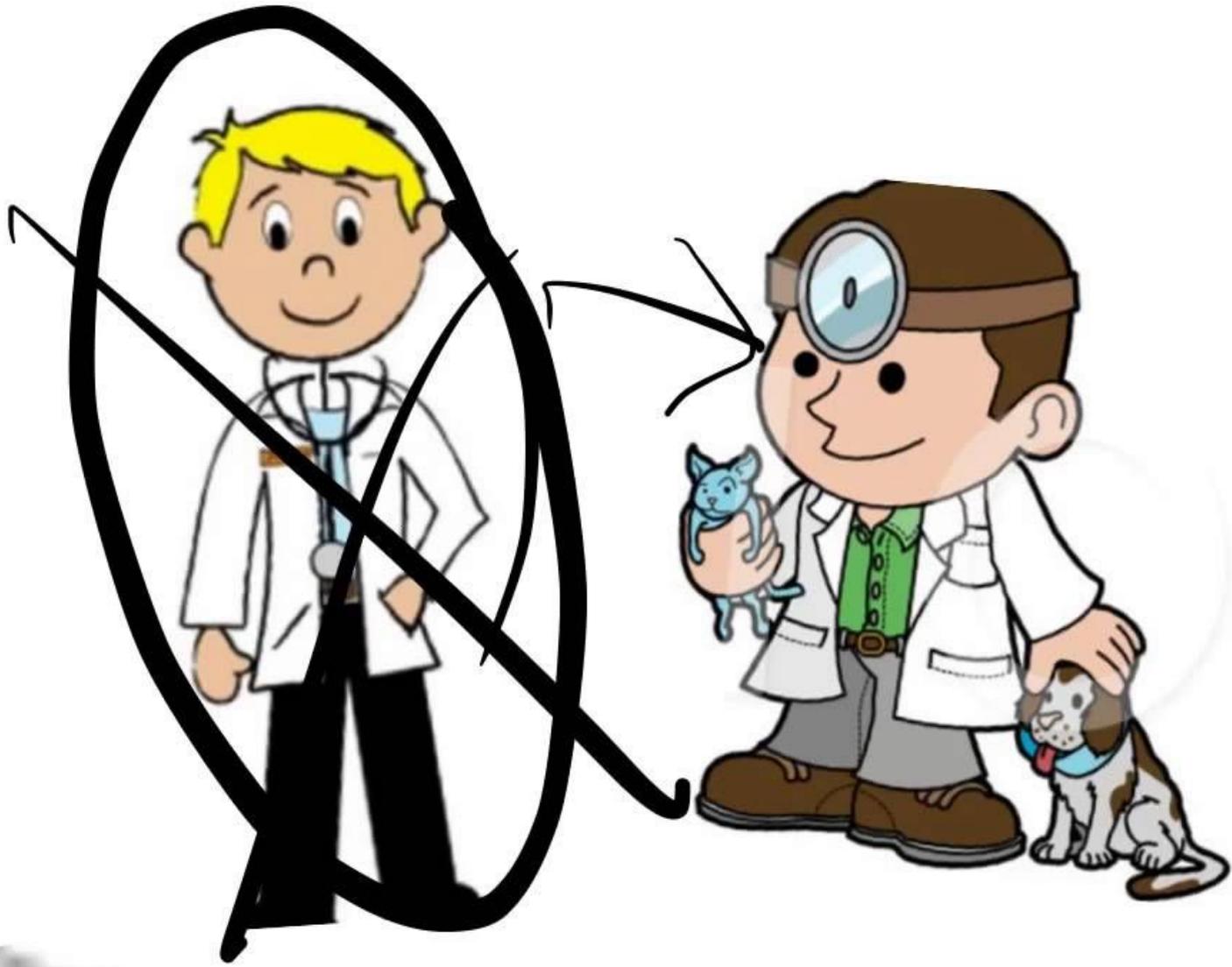
# Growth vs proficiency



**APPEAL TO AUTHORITY ON THE OFFENSE**

**FALSELY ASSUMED A PROCLAIMED  
EXPERT IN A FIELD IS INFALLIBLE.**

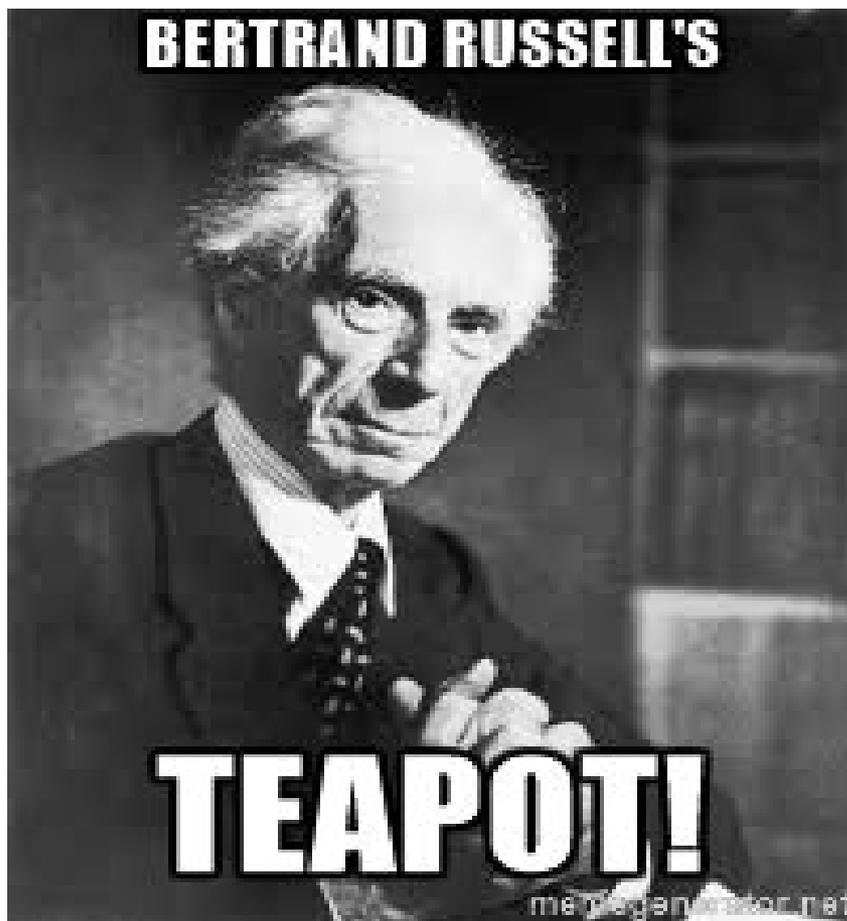




# Appeal to Ignorance (Argumentum ad Ignorantiam)

- X has (or has not) been proven true. Therefore, it is (or is not) false.
- This fallacy asserts that a claim is true (or false) simply because no one has proven it's false (or true). 'God exists because no one has proven otherwise,' and so forth.

**BERTRAND RUSSELL'S**



**TEAPOT!**

memegenerator.net



DAVID RAPHAEL 2010

A

# Appeal to Ignorance Example

Juror Two:...I just think he's guilty. I thought it was obvious.

Juror Eight: In what way was it obvious?

Juror Two:I mean that nobody proved otherwise.

(exchange from "Twelve Angry Men")

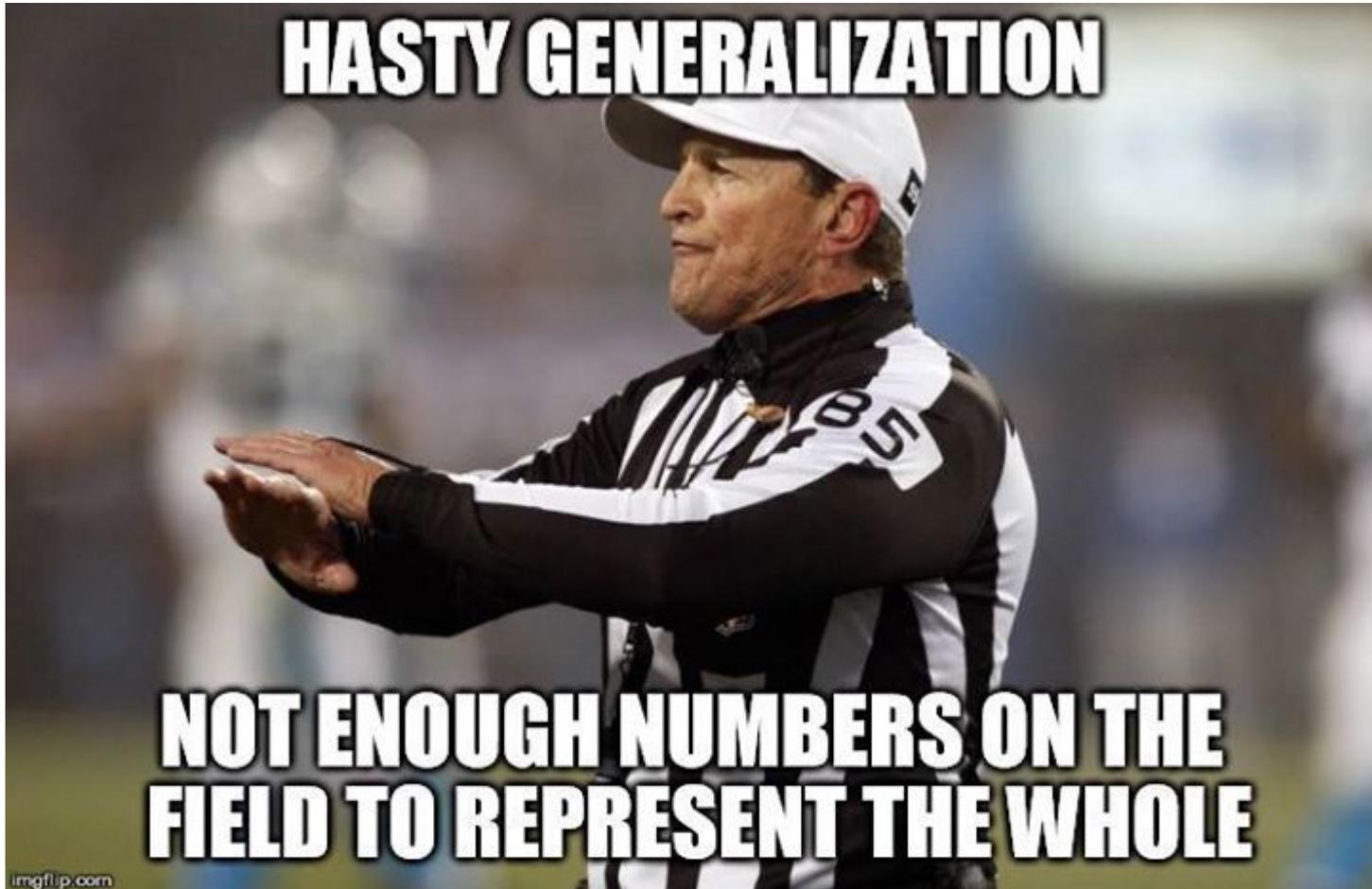
# Good Reasoning That Looks Like Ad Ignorantiam

- There are times when concluding that some state of affairs is or is not the case based on a lack of proof is *not* an appeal to ignorance. Depending on the plausibility of the claim, the reasoning is not fallacious.
- Unstated Premise (There's no elephant in the room...If there were I'd have seen it.)
  - If an argument is simply lacking an explicitly stated premise, the argument is not an appeal to ignorance.
- Background Belief (Coelacanths are extinct...No one's seen one for years...)
  - Though we should always be prepared to amend our beliefs, we still reason according to the beliefs we have — our best evidence from everyday experience.

# Hasty Generalization (Converse Accident)

- X, Y, and Z are all A. Therefore, all things are A.
- Hasty generalization occurs when a general claim (“all,” “every,” “whenever”) is inferred from an inadequate (too small) sample size. Generalizations are, by their very nature, approximations. When we don’t approximate well, such as when we overstate a claim in general terms, we are guilty of fallacious reasoning.

AKA. STEREOTYPING



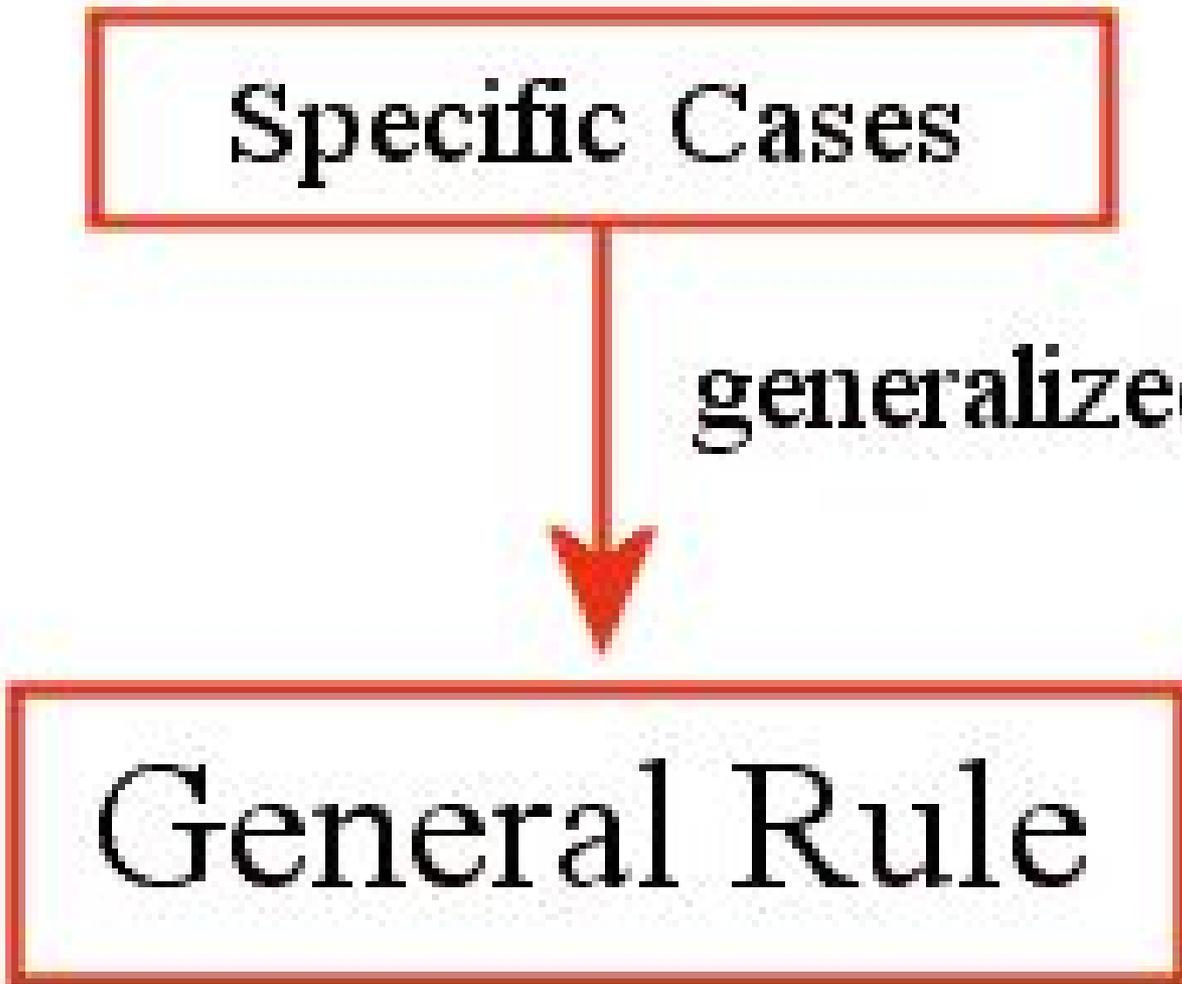
**HASTY GENERALIZATION**

**NOT ENOUGH NUMBERS ON THE  
FIELD TO REPRESENT THE WHOLE**

**Specific Cases**

**generalized**

**General Rule**



# Opposite of “Accident”

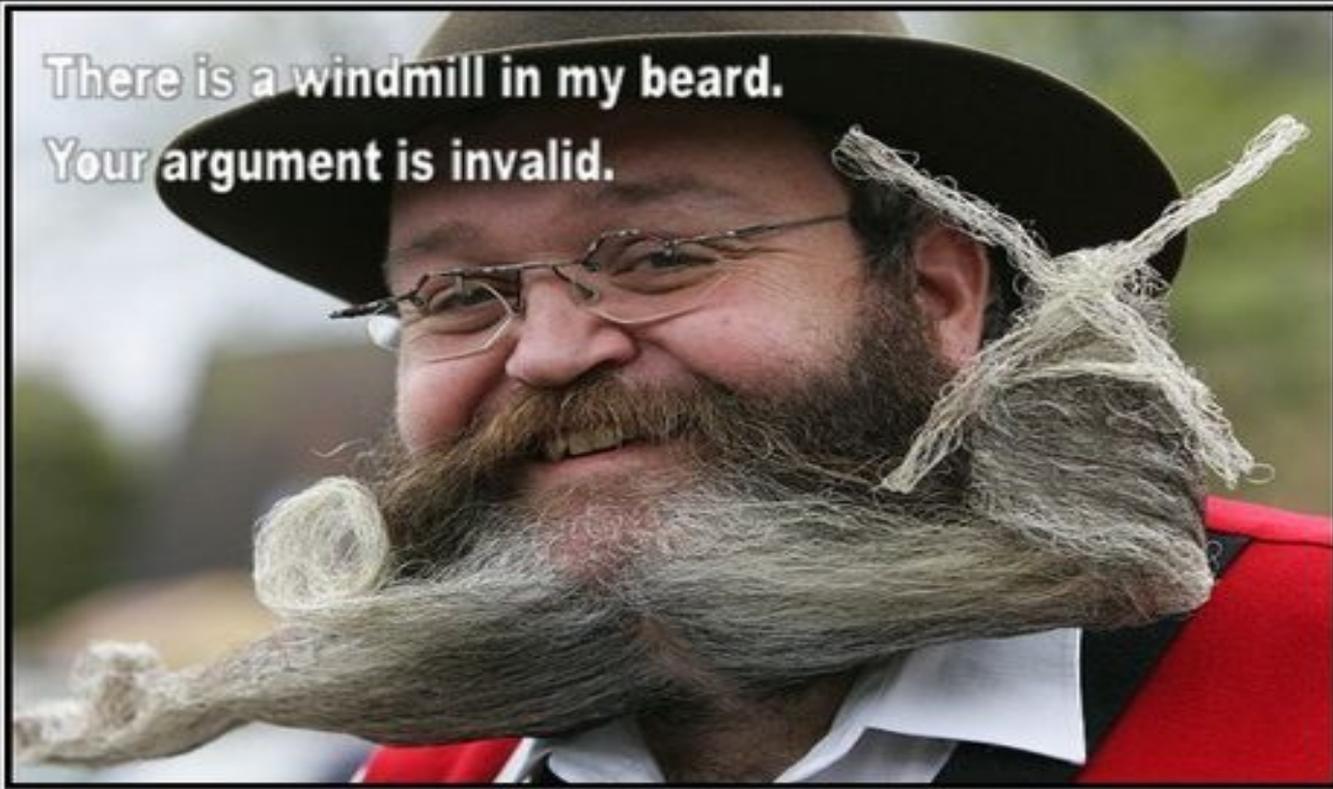
- In a Hasty Generalization, we are moving from small to big:
- “I've taken a few interesting Philosophy courses at Harbor College. So all Philosophy classes must be pretty interesting!”
- “Philosophy students are incapable of being rational, logical, and identifying fallacies. My roommate is a philosophy major and doesn't know anything about the strawman!”

# Careful about the numbers

“On three separate occasions I drank a bottle of Figowitz beer and found it flat and bitter. Probably I would find every bottle of Figowitz beer flat and bitter.”

“Ten milligrams of zymoxygen hypozolate was administered to 4 different lab mice. Within 2 minutes each mouse went into shock and died. Probably zymoxygen hypozolate, in this amount, is fatal to mice in general.”

There is a windmill in my beard.  
Your argument is invalid.



# LOGICAL FALLACY

Confusing your opponent  
into silence does not mean  
you have won the argument

# False Cause

- X happened before Y. Therefore, X caused Y.
- X and Y happened together. Therefore, X caused Y.
- False cause occurs when a causal relationship is claimed between two events that occur one after the other.

# False Cause Examples

- UFOs must be propelled by some sort of electromagnetic source. On the night of the big power blackout in New York City, there were a number of reports of UFO activity in the area.
- Yesterday, as I walked into my office, I noticed somebody leaving whom I didn't recognize. And when I looked for my briefcase later that day, I couldn't find it. All I remember about the guy who took it was that he was about six feet tall, had long blond hair, and seemed to walk with a limp. He shouldn't be too hard to find.
- Many successful CEOs make over 100k a year and have expansive wine cellars. So, in order to find the next successful CEO of PizzaMan Corp, all we need to do is pay them 100k a year and give them a house with a large wine cellar!

# False Cause: It rained because I just washed my car

Washing my car



caused



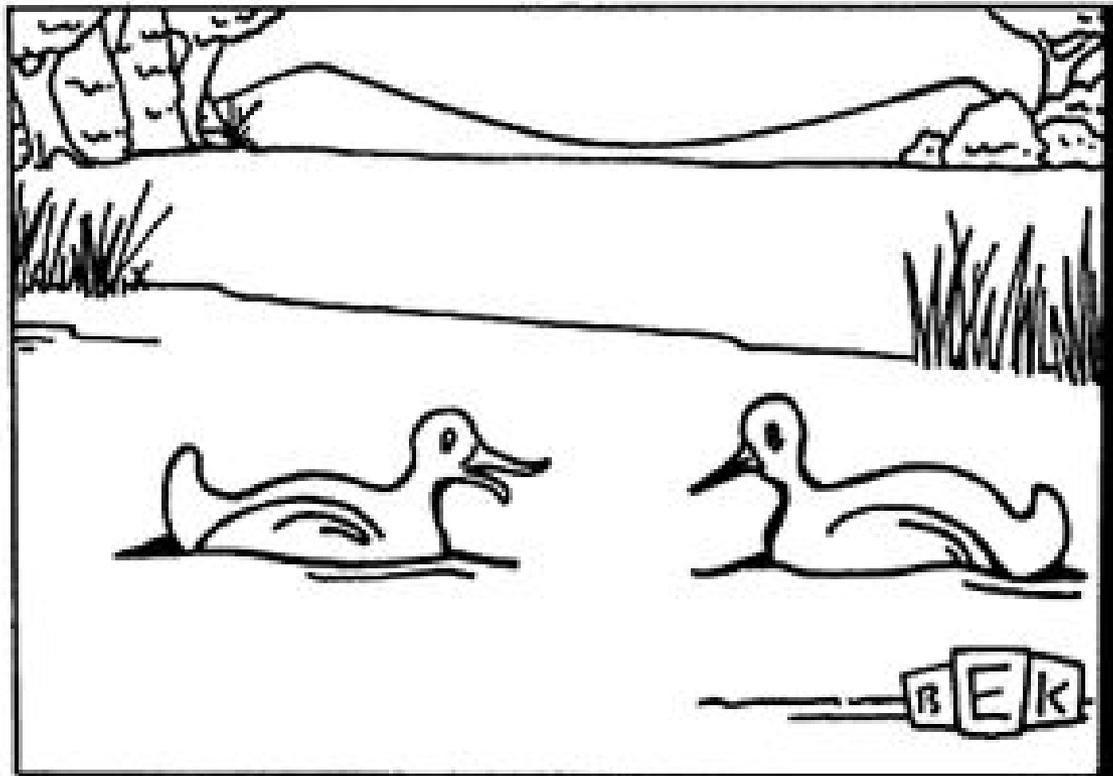
the rain to come



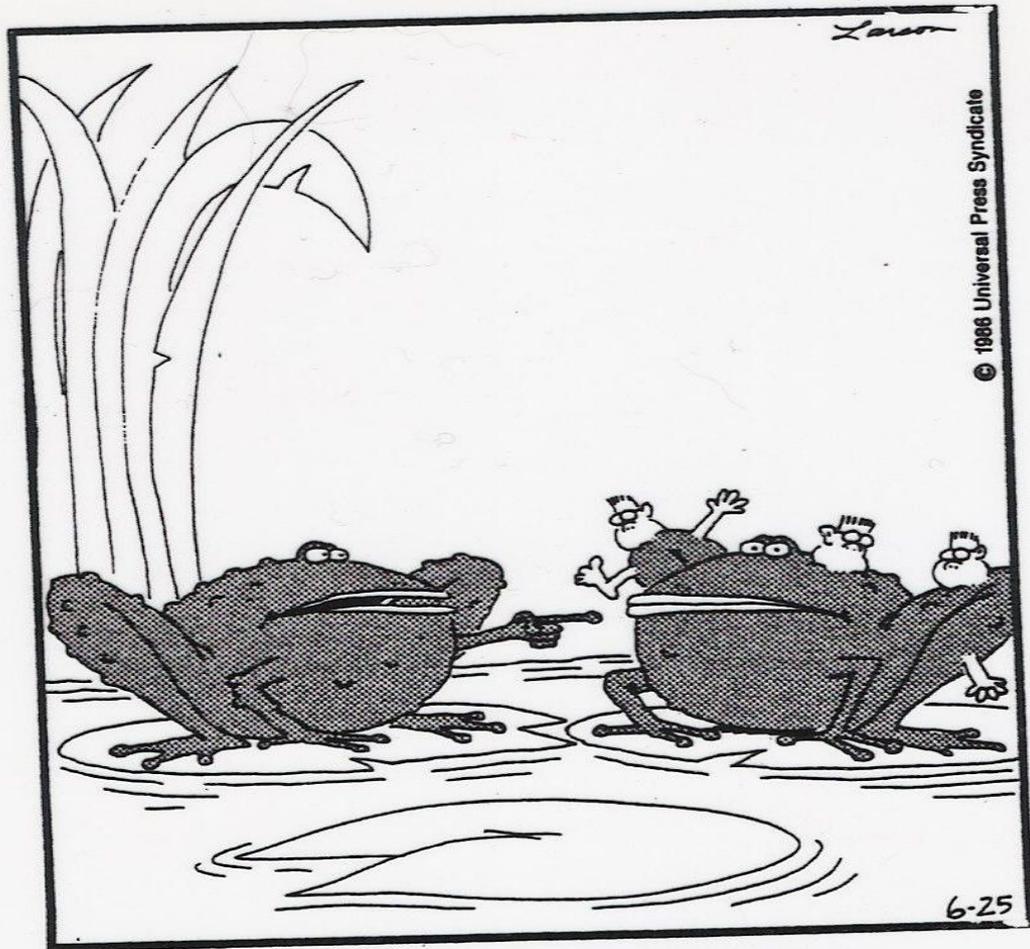
**I ate a loaf of bread, and got a cold a few days later**



**I must have gotten sick from the bread I ate**



*“Maybe you should ask yourself why you’re inviting all this duck hunting into your life right now.”*



**"Wait a minute, Vincel! Last summer — remember? Some little kid caught you, handled you, and tossed you back in the swamp ... *That's* where you got 'em."**

# Slippery Slope

- The slippery slope fallacy is committed when one argues against another argument by misleading the listener or reader into thinking that the argument's conclusion will lead to undesirable or unacceptable results.
- To argue against someone by showing that their argument leads to unacceptable results is not by itself fallacious.
- But slippery slope misleads by introducing a series of consequences (the slippery part), one more unacceptable than the next, that are purported to follow from the argument in question, until a terrible result is reached. Since we don't want to reach that terrible result (the bottom of the slope), we should not take the first step (the conclusion of the argument in question). Typically, the first consequence (step) is one the reader/listener would accept, but is not sufficient for the final, unacceptable, result.



# Slippery Slope Pattern

- X is a bad idea (policy, position, etc.) because if X is adopted, then a series of increasingly bad results will inevitably follow from it. The final result will be so abhorrent that no one would endorse it. Therefore, we should not adopt X.
- "The way to counter a slippery slope argument is to show that the claim at issue will *not* have the consequences associated with it. Usually an effective reply will attack the most immediate consequence; more remote consequences tend to be highly speculative and thus difficult to either confirm or reject." (Stephen S. Carey, *The Uses and Abuses of Argument*)
- Note: sometimes, this pattern is used to endorse an idea on the basis that increasingly good results will follow, though this is far less typical than the negative pattern cited above.

 CAUTION



SLIPPERY  
SLOPE

# Slippery Slope Examples

- A couple of these examples are not obvious slippery slopes, because there is not a stated sequence of consequences. Nevertheless, they fall within the basic definition of the fallacy:
- "Most Americans don't want to sit down and explain to their children why they live in a country where men can marry men, why there's polygamy — because that would naturally follow, we would argue. If two men could marry, so could three, four, or more."  
(Gary Bauer, former Republican presidential candidate, and creator of an organization called Americans United to Preserve Marriage; *Washington Post*)

# Slippery Slope Examples, cont.'

- Gov. Arnold Schwarzenegger turned up the rhetoric against San Francisco's move to allow same-sex marriages, saying on national TV Sunday that he fears outbreaks of serious civil unrest if the ceremonies continue at City Hall.

Schwarzenegger said on NBC's "Meet the Press" that he fears worsening protests about the divisive issue and worries the situation could get out of hand if courts don't quickly stop the marriages, which are being performed in defiance of existing state law.

"All of a sudden, we see riots, we see protests, we see people clashing. The next thing we know, there is injured or there is dead people. We don't want it to get to that extent," the Republican said in his first appearance as governor on a Sunday talk show."

(From the *San Francisco Chronicle*, Feb. 23, 2004)

# Slippery Slope Examples, cont.'

- "This past year, it was quietly announced that Holland had approved euthanasia for children under twelve. This news alone was unsettling, but then last month came the disturbing disclosure that not only had euthanasia been approved for infants, but had in fact been practiced by doctors for some time. In other words, first adults and now children and infants are slowly being eliminated in the name of "compassion."

The practice has been approved for terminally-ill infants, or those whose suffering is deemed intolerable. Presumably, this includes babies that are premature, developmentally disabled, or physically deformed. This is in marked contrast to the United States, where such infants are kept alive against all odds, using expensive, cutting-edge technology. But the Dutch have apparently decided that these lives are expendable. How long before other "undesirables" are slated for termination?"

LOVING V. VIRGINIA, 1967

JUST YOU WATCH! NOW THAT BLACK CAN MARRY WHITE, PEOPLE MARRYING HOUSEPETS IS JUST AROUND THE CORNER!



ROE V. WADE, 1973

NOW THAT ABORTION IS LEGAL, WE'RE CERTAIN TO MAKE IT LEGAL TO COMMIT INFANTICIDE! ANY YEAR NOW!



GOODRIDGE, 2003

IF GAYS CAN MARRY, LEGAL INCEST AND BIGAMY WILL COME NEXT! IT'S INEVITABLE!



DUDE, I DON'T THINK THIS SLOPE IS NEARLY AS SLIPPERY AS YOU THINK IT IS.



OH SHUT UP.

# Weak Analogy

- The strength of an analogical inference depends on the relevant similarities and the irrelevant dissimilarities.
- If the conclusion drawn depends on irrelevant similarities, or relevant dissimilarities, the argument is weak.
- Identify the characteristics the items are claimed to share, and determine whether or not those characteristics are relevant to the conclusion.
  - As Hurley tells us, a weak analogy will fail to have “some causal or systematic relation” between the attributes of the two entities being compared.

# Weak Analogy Examples

- Sally's new car is bright blue, has leather upholstery, and gets excellent gas mileage. Rodrigo's new car is also bright blue and has leather upholstery. Therefore, it should get excellent gas mileage, too.



# Weak Analogy Examples, cont.'

- 'would I kill my own daughter so I could walk again? Of course not. So why would I kill someone else's?' (re: stem cell research opposition.)
- "I get calls from nutso environmentalists who are filled with compassion for every snail darter that is threatened by some dam somewhere. Yet, they have no interest in the 1.5 million fetuses that are aborted every year in the United States."  
(Radio host, Rush Limbaugh [Note: I need to find the source of this quote.])
- Apples and tomatoes are both fruits. Apple slices are tasty with peanut butter on them. Therefore, tomato slices would be good with peanut butter on them.