

# FALLACIES

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**How To Recognize and Avoid Them**

**Joseph M Conlon  
Technical Advisor, AMCA**

# What is a fallacy?

- Fallacies are logical errors that weaken arguments
  - Commonplace
  - Can be persuasive to the uninformed
  - Can be driven by agendas or strong feelings

# Begging the Question

- **Definition:** An argument that accepts as fact that which has yet to be proven - circular reasoning.
- **Example:** “The reason there’s such a big demand for ‘natural mosquito control’ is because everyone wants to use it.”
- **Tip:** Check to see whether any of their premises basically says the same thing as the conclusion (but in different words). Do not let them just assume or use as uncontroversial evidence the very thing they’re trying to prove.

# Straw Man

- **Definition:** The arguer sets up a weak version of the opponent's position and tries to score points by knocking it down.
- **Example:** "Councilman X says we shouldn't fund the sentinel chicken program. I don't know why he wants to leave us defenseless like that."
- **Tip:** State opponents arguments as strongly, accurately, and sympathetically as possible. If you can knock down even the best version of an opponent's argument, then you've really accomplished something.

# Red Herring

- **Definition:** Partway through an argument, the arguer goes off on a tangent, raising a side issue that distracts the audience from what's really at stake. Plausible, but irrelevant.
- **Example:** “Using natural mosquito controls is the most effective method of controlling mosquitoes. After all, natural controls don't hurt the environment.”
- **Tip:** Can they explain how each premise supports the conclusion?

# “*post hoc, ergo propter hoc,*”

- **Definition:** Assuming that because B comes after A, A caused B. Correlation isn't the same thing as causation.
- **Examples:** “The local MAD made a ULV application last week and I saw dead bees yesterday. The mosquito control application caused the bee deaths.”
- **Tip:** The bee kill may or may not have been caused by the application, but the argument hasn't shown us that one caused the other.
- To avoid the *post hoc* fallacy, the arguer would need to give us some explanation of the process by which the mosquito control application is supposed to have produced the bee kill i.e. exposure.

# Ad Hominem

## Circumstantial Ad Hominem

- **Definition:** The *ad hominem* (“against the person”) fallacy focuses our attention on people rather than on arguments or evidence. In an *ad hominem* argument, the arguer attacks his or her opponent instead of the opponent’s argument. In a *circumstantial ad hominem* argument, the opponents association with a circumstance is the target.
- **Example:** “Joe Conlon works for the AMCA, therefore his views are tainted by industry.”
- **Tip:** Make sure your opponents stay focused on your reasoning, rather than on your personal character or affiliations.

# *Tu Quoque*

- **Definitions:** The *tu quoque* (“you, too!”) fallacy focuses our attention on people rather than on arguments or evidence. In a *tu quoque* argument, the arguer attacks the opponent as a hypocrite instead of the opponent’s argument.
- **Example:** “MADs can’t tell us not to use any household chemicals in mosquito control, for they use chemicals too.”
- **Tip:** Make sure your opponents stay focused on the evidence supporting your argument, rather than on their accusations of hypocrisy.

# Slippery Slope

- **Definition:** The arguer claims that a sort of chain reaction, usually ending in some dire consequence, will take place, but there's really not enough evidence for that assumption.
- **Example:** "Killing adult mosquitoes will reduce the number of mosquito larvae, which will have cascading effects all through our ecosystem, resulting in total collapse of our natural world."
- **Tip:** Since sometimes a chain of events really can be predicted to follow from a certain action, a true Slippery Slope fallacy must be rebutted by analysis of each cause/effect.

# Appeal To Authority

- **Definition:** Often activists attempt to add strength to their arguments by referring to a supposed authority who really isn't much of an expert.
- **Example:** Activists often use Sheldon Krimsky PhD, on the faculty of Tufts School of Medicine, as an authority on the dangers of using mosquitocides.
- **Tip:** Check the credentials of the “authority” cited and force your opponent to explain the reasoning or evidence that the “authority” used to arrive at his or her opinion.

# False Dichotomy

- **Definition:** In false dichotomy, the arguer sets up the situation so it looks like there are only two choices. The arguer then eliminates one of the choices, so it seems that we are left with only one option: the one the arguer wanted us to pick in the first place.
- **Example:** “The mosquito situation here is unacceptable. Either we solve it by using chemical or nonchemical means. Obviously we shouldn’t risk using chemicals, so we must nonchemical methods of control.”
- **Tip:** Examine your opponent’s arguments. If there are other alternatives, don’t just ignore them—explain why they, too, should be ruled out.

# Partial List Of Fallacies

- Begging the Question      Tu Quoque
- Straw Man                      Slippery Slope
- Red Herring                      Appeal to Authority
- Post Hoc                          False Dichotomy
- Ad Hominem

# Finding Faults In Opponents Arguments

- List their main points and the evidence to support them.
- Learn which types of fallacies they're especially prone to.
- Be aware that broad claims need more proof than narrow ones.
- Double check their characterizations of others.

**“Fallacies do not cease to  
be fallacies because they  
become fashions.”**

**G.K.Chesterton**