

# Introduction to Logical Reasoning

## *Fallacies of Irrelevance*

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# Logical Fallacies

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A **fallacy** is a type of argument that may initially seem to be correct but that proves, on examination, not to be so. Fallacies usually fall into several common patterns of reasoning. They may often have psychological appeal, but they always lack a logical foundation. For this final unit of the course we will examine different sorts of *informal* fallacies.

# 🐸 Fallacies of Irrelevance



Fallacies of irrelevance are fallacies in which the premises are irrelevant to the conclusion. Such a fallacy is often called a *non sequitur* (“does not follow”), which is an argument in which the conclusion does not follow from the premises.

# 🐉 The Appeal to Emotion

An appeal to emotion is a fallacy in which the argument relies on emotional responses rather than reason. It is *sine qua non* in both advertising and politics.





# ❧ The Appeal to Emotion



# ☛ The Appeal to Emotion





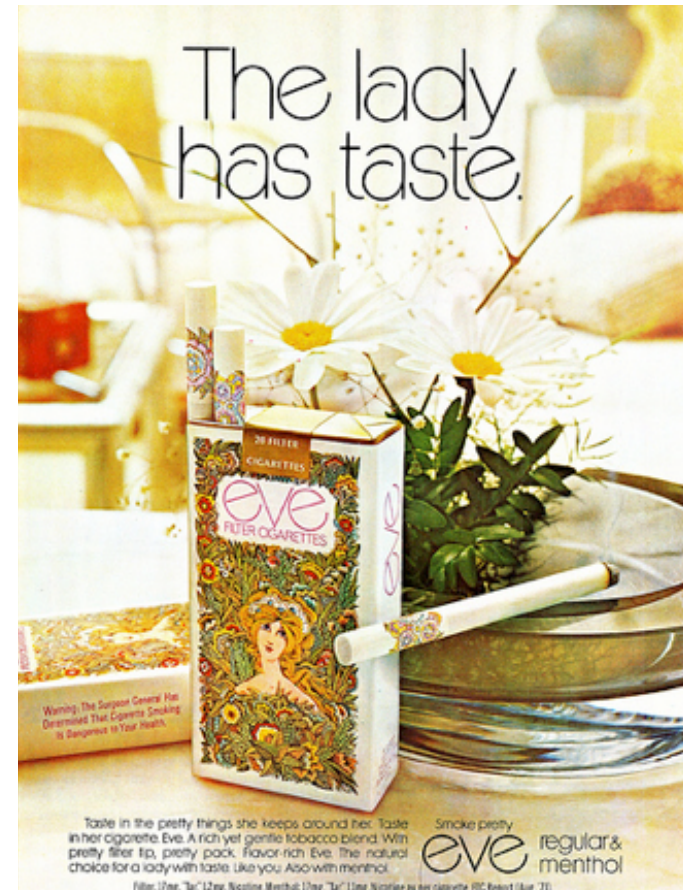
# 🐉 The Appeal to Pity

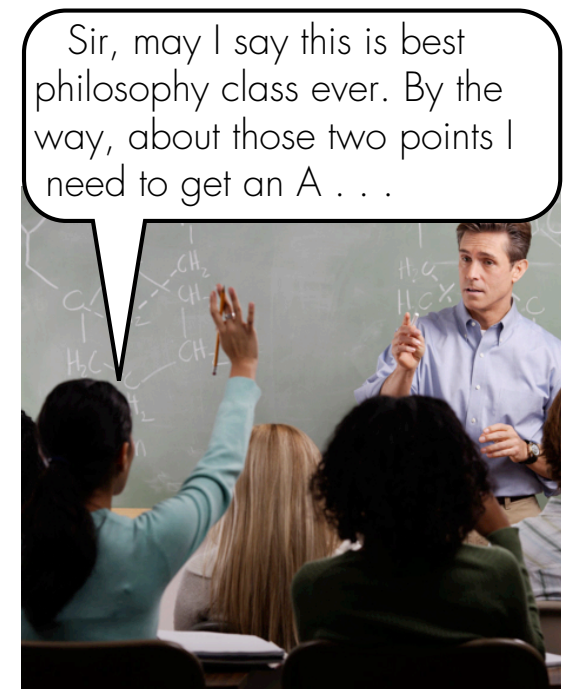
An appeal to pity  
(*argumentum ad  
misericordiam* or “appeal  
to the pitying heart”) is  
an appeal to emotion  
that relies on generosity,  
altruism, or mercy.



# 🐉 The Appeal to Vanity

An appeal to vanity (“apple polishing”) is an appeal to emotion that relies on flattery.







# 🐼 The Appeal to Popularity

An appeal to popularity (*argumentum ad populum* or “appeal to the populace”) is a fallacy in which the argument relies on claiming that a substantial number of people agree with it.



CNN, the most trusted name in news.

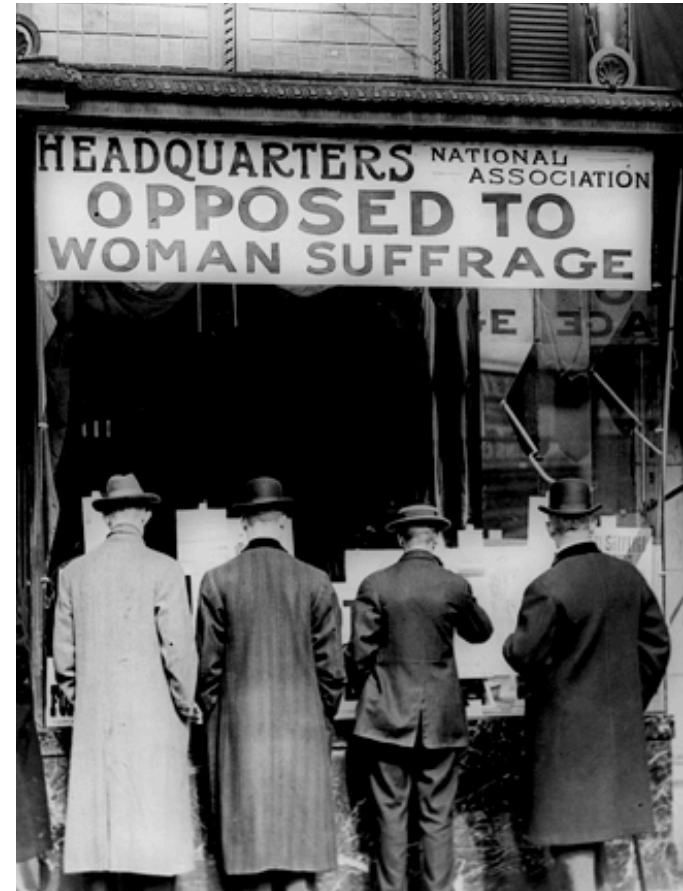


Why are so many people attracted to the new Pontiac Grand Prix? It could be that so many people are attracted to the Grand Prix because—



# 🐉 The Appeal to Tradition

An appeal to tradition (*argumentum ad antiquitatem* or “appeal to antiquity”) is a fallacy in which the argument relies on the claim that something is part of a tradition.



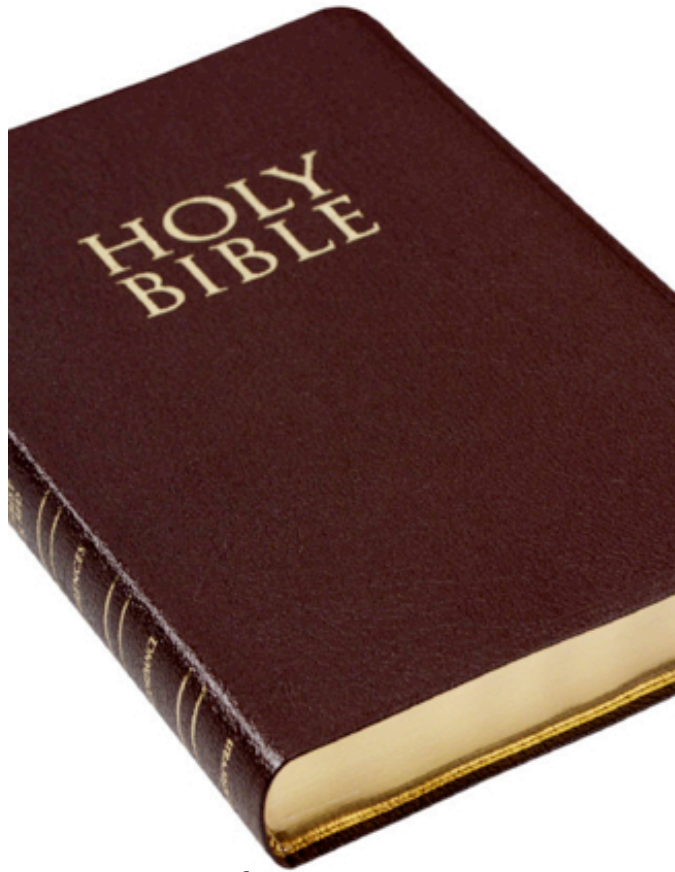


# ❧ The Genetic Fallacy

The genetic fallacy is a fallacy in which the argument relies on affirming or denying a claim solely because of its origin.



# 🐛 The Genetic Fallacy



It came from the Bible,  
so it must be true.

Whatever liberals say,  
do just the opposite!



# The Red Herring

A **red herring** is a fallacy in which a distracting element is introduced to obscure a position. It is also sometimes known as **missing the point** (*ignoratio elenchi* or “mistaken proof”).

Sir, why should I study logic? I don't want to be a logician.





# 🐉 The Red Herring



Questioning U.S. military expansion in the Middle East is soft on terror and comfort to Bin Ladin.

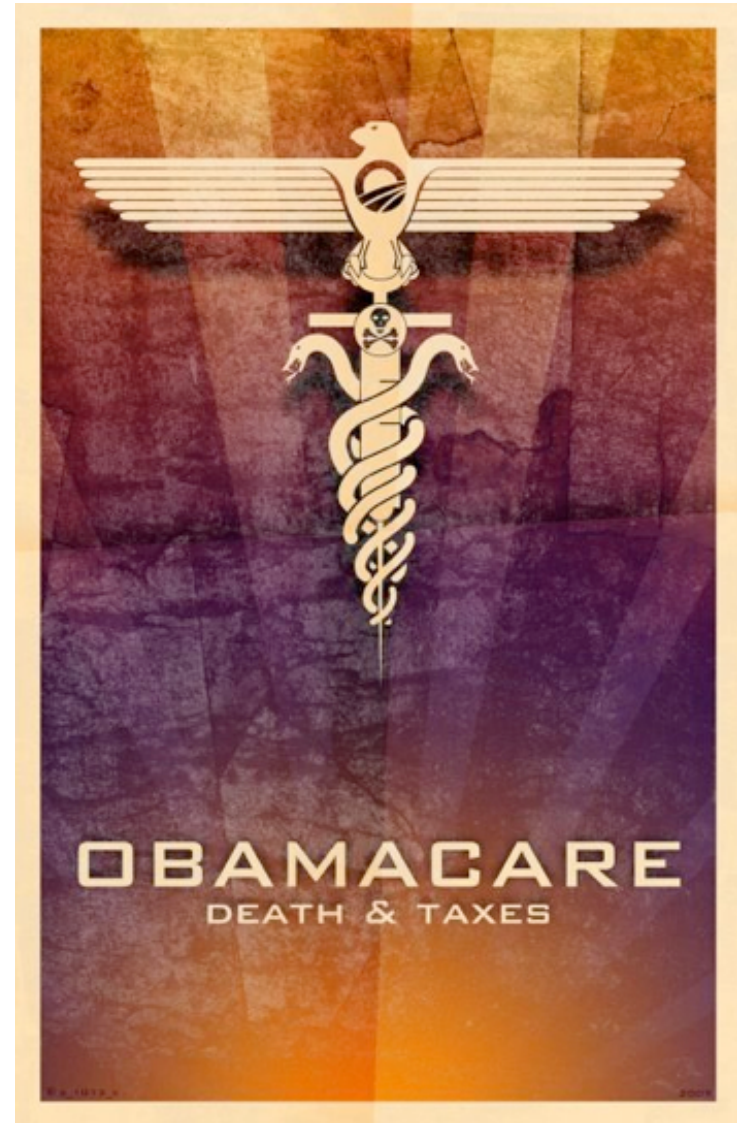


Hillary is qualified to be president because her husband is Bill Clinton.



# 🐛 The Straw Man

A **straw man** is a fallacy in which a position is misrepresented.









# ❧ *Argumentum Ad Hominem*

The *argumentum ad hominem* (“appeal to the man”) a fallacy in which the argument relies on irrelevant claims about the person holding a position.



# Abusive *Ad Hominem*

An abusive *ad hominem* is an *ad hominem* that attacks the character or other personal qualities of a person.



# ☛ Guilt By Association

[Hitler's] social agenda was for expanding universal access to healthcare, for expanding access to education, it was for cradle-to-grave welfare state, for attacking big business and high finance.

– Jonah Goldberg, Author  
*Liberal Fascism*



# ❧ Circumstantial *Ad Hominem*

A circumstantial *ad hominem* is an *ad hominem* that appeals to some personal circumstances involving a person.





# 🐉 The Appeal to Consistency

An appeal to consistency is a type of circumstantial *ad hominem* that claims a person's circumstances require the acceptance (or rejection) of a position.

**REPUBLICAN IN**



**NAME ONLY**

# 🐼 The Appeal to Hypocrisy

An appeal to hypocrisy (*tu quoque* or “you too”) is an appeal to consistency that claims a person’s circumstances are not consistent with a position that person holds.



# 🐉 The Appeal to Hypocrisy

Cliff Arnett: The United States government says that . . . you're a sponsor of international terrorism. . . . Are these accusations true?

Osama bin Laden: . . . Wherever we look we find the U.S. as the leader of terrorism and crime in the world. The U.S. does not consider it a terrorist act to throw atomic bombs at nations thousands of miles away. . . . So there is no basis for what the U.S. says.

– CNN, March 1997





# Two Wrongs Make A Right



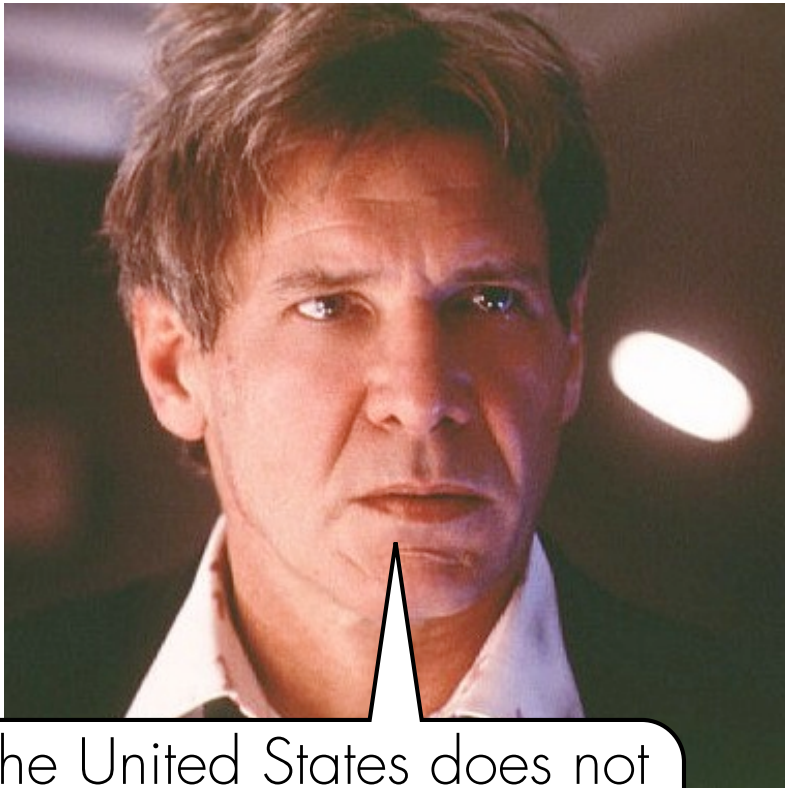
# ☛ Poisoning the Well

Poisoning the well is a circumstantial *ad hominem* that makes further rational discourse impossible.





# ☛ Poisoning the Well



The United States does not negotiate with terrorists!





# 🦉 Appeal to Force

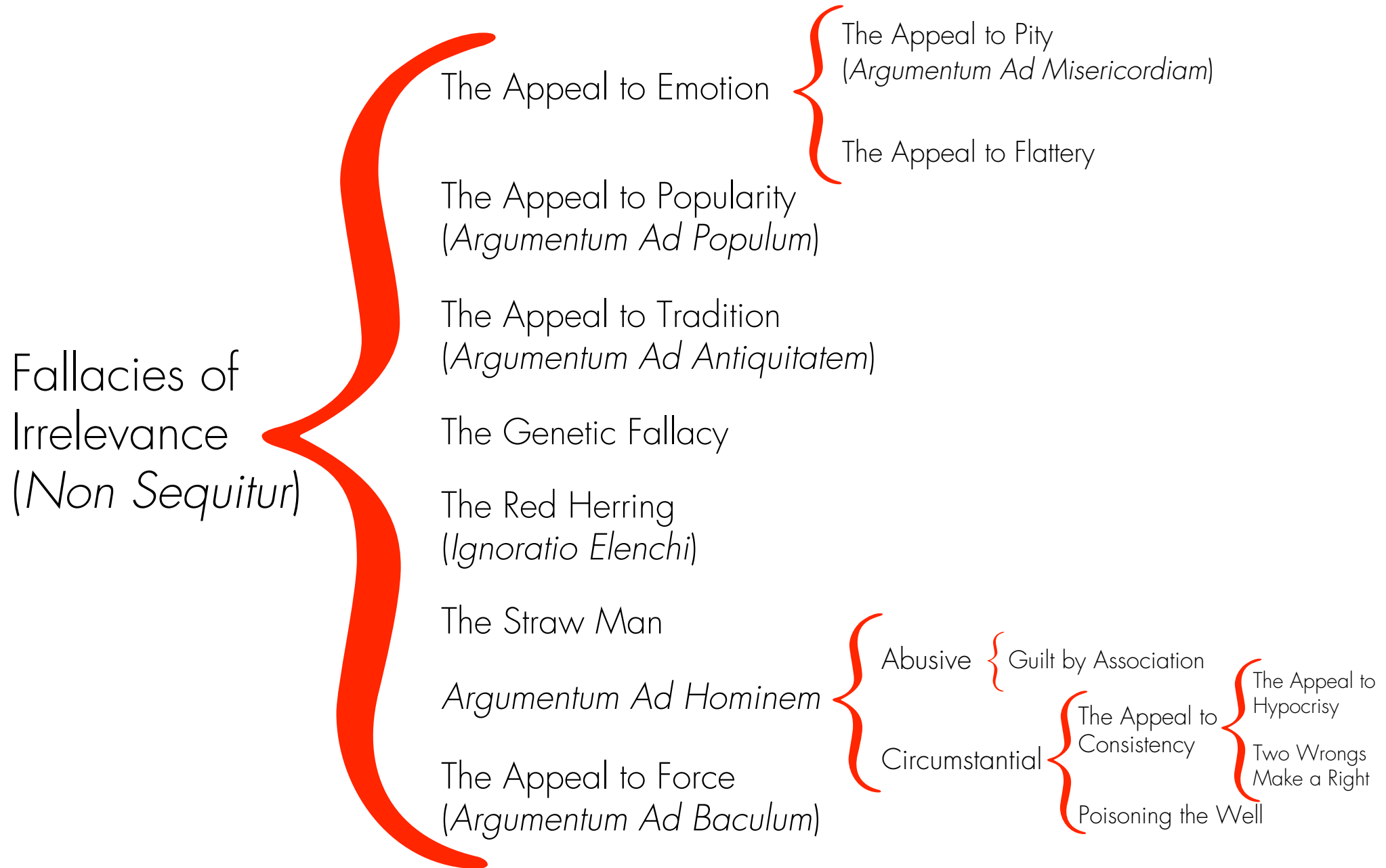
An appeal to force (*argumentum ad baculum* or “appeal to the stick”) is a fallacy in which the argument relies on threats of force or coercion.







# Informal Fallacies (So Far)





# Exam #3 Schedule

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Because of the differing final schedules of Carnegie Mellon and Northwestern, the times for **Exam #3** must be split up as follows:

**NU-Q Students:** Sunday, April 24 from 11:00AM to 12:00PM (noon) in room TBA.

**CMU-Q Students:** Sunday, April 24 from 2:00PM to 3:00PM in classroom 1190.

You *must* attend the exam based on the university with which you are enrolled for this course.

# Next Class...

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We will look at several other types of fallacies.