Critical Appraisal of Argument
Elements of Critical Thought

- Points of View
- Purpose
- Implications and Consequences
- Question at Issue
- Assumptions
- Information
- Concepts
- Interpretation and Inference
People are not Always Reasonable

- Beliefs are not always reasonable
- Thinking is not always reasonable
- The mind is not always reasonable
- Social influence is not always reasonable
Syllogism

- Major Premise: All men are mortal.
- Minor Premise: Socrates is a man.
- Conclusion: Therefore, Socrates is mortal.
Inference

► Quasi-logical arguments
► Arguments by analogy
► Arguments from generalization
► Arguments from cause
► Co-existential arguments
Quasi-logical Arguments

► Resemble formal logic
► If the Seattle Mariners can beat the Texas Rangers, and the Rangers can beat to Oakland Athletics, then Seattle should be able to beat Oakland.
► Come in three kinds
Quasi-logical Arguments

► Transitivity:
► Bill’s friends are my friends, and you’re a fried of Bill, so you are a friend of mine.

► As syllogism:
  - All of Bill’s friends are my friends.
  - You are Bill’s friend.
  - Therefore, you are my friend.
Quasi-logical Arguments

- Incompatibility
- The candidate says he’s opposed to nepotism, but he appointed his cousin as director of the White House Travel Office.

As syllogism:
- No opponents of nepotism appoint their relatives.
- This candidate appointed his relative.
- Therefore, this candidate cannot be an opponent of nepotism.
Reciprocity
Meeting our responsibilities means doing a better job.

As syllogism:
- If we do a better job, we will meet our responsibilities.
- We are doing a better job.
- Therefore, we are meeting our responsibilities.
Argument by Analogy

- Assume two objects, events, or situations are similar
- One is well-known, the other is less well-known
- Help us make an attribution to the less well-known object, event or situation
Argument by Analogy

- The state of Oregon has moderate beverage consumption, limited revenues for collecting and disposing of waste, demographic characteristics similar to Washington state, and a ban on nonreturnable bottle and cans that effectively reduced container waste.

- The state of Washington also has moderate beverage consumption, limited revenues for collecting and disposing of waste, and demographics similar to Oregon.

- Therefore, Washington state’s proposed ban on nonreturnable beverage containers will reduce container waste.
Argument by Analogy

“In this fiftieth anniversary year of the end of World War II, Germans remain understandably nervous about the staying power of fascism, which was largely a product of the inter-war years. How much more cautious, then, should Americans be about assuming that racism and sexism – much older and more pervasive problems – have been defeated by a mere 30 years of legal and social initiatives?”
Arguments from Generalization

- Assume what is true of one or some members of a class will be true of other members of that class.
- The evidence is the presentation of specific instances.
- The inference is that these instances are representative.
Arguments from Generalization

“Along with reducing tax rates, we must also aggressively reduce tax rules and regulations. It’s estimated that last year alone, American taxpayers spent 1.8 billion hours filling out their tax forms. Businesses spent twice as much time sending the IRS over 1 million reports.”

Evidence: 1.8 b hours, 1 m+ forms

Inference: these represent complicated tax rules and regs
Arguments from Generalization

“When one teaches about Marco Polo, or William of Normandy, or Goethe, or Joan of Arc, one is essentially engaging in the process of transmitting information about a cultural heritage and legacy. The names of the Africans, Ibn Battuta, or King Sundiata of Mali, or Ahmed Baba, or Yenenga, are never spoken in high school classes, and under the current curricular structure, is they were heard, would lack credibility even though they are by world standards certainly the equal of the Europeans I have mentioned in contrast.”
Causal Arguments

► Assert that one condition brings about another condition
► Evidence is the physical presence of causes and effects
► Inference is that one condition or event brings about the other
“The new beltways and interstates offered cheap access to farmland on the fringe, and the result was suburban sprawl and disinvestment in existing business districts. People are waking up to the fact that low density, auto dependent sprawl has profound consequences on our quality of life and our individual and collective pocketbooks.”

- **Cause**: beltways and interstates
- **Effect**: urban sprawl, harm to existing businesses
- **Cause**: urban sprawl
- **Effects**: harm to quality of life, pocketbooks
Causal Arguments

“A great deal of effort has gone into discovering and analyzing the ways in which humans could be exposed to radioactive materials... Waste canisters corrode, and water leaches radioactive elements ... out of the spent fuel or vitrified high-level waste, then carries them into groundwater. People would be exposed if they used the water for any of the usual purposes: drinking, washing, or irrigation.”
Co-existent Arguments

- Claim that two things co-exist
- Reason from something that can be observed (a sign), to a condition that cannot be observed.
Co-existent Arguments

► Jill: You need to put oil in your car before you drive it today.
► John: Why? Is the oil low?
► Jill: Well the oil light was on when I came home last night.

► Sign: oil light on
► Condition: oil in car is low
Co-existential Arguments

► “John turned in his last two papers late, hasn’t washed his dishes in a week, and has a month’s worth of dirty laundry piled up. He must be a procrastinator.”
Sphere-Dependent Arguments

Public Sphere

Technical Sphere

Personal Sphere