1. **Inductive vs. Deductive Arguments**

- **Import**: failure to distinguish these can lead to application of the wrong evaluative standard (e.g., using *validity* to evaluate an inductive argument), resulting in the treatment of a bad argument as good or a good argument as bad.

- **Distinguishing Inductive and Deductive Arguments**: if you are supplied an argument with no context, then these heuristics can be helpful:
  - IF (a) an argument has a guarded conclusion (e.g., “likely”, “probably”), or (b) it fits the form of one of the inductive arguments we’ve seen, THEN it is probably *inductive*.
  - IF (a) an argument depends on the logical structure supplied by connectives (e.g., ‘or’, ‘and’, ‘if … then’), or (b) it is valid, THEN it is probably *deductive*.

- **Examples**:
  - I have seen a lot of philosophers in my day, and they are all confused, so philosophers are probably just confused people.
  - Either you’re with me or you’re against me; based on what you just said, I’d say you’re not with me; therefore, you’re against me!

2. **Statistical Generalizations**

- **Import**: whenever someone generalizes from properties of a sample to claims about a population (e.g., from students in this class to MSU students, from members of ISIS to Muslims in general), then they are producing a *statistical generalization*; this happens a lot, so it is good to be able to discern good instances of this type of argument form from bad.

- **Evaluation**: a statistical generalization is good just in case (a) the claims made about the sample are true and aren’t based on biased observations, (b) the sample isn’t too small and isn’t too biased, (c) the conclusion doesn’t go too far, outstripping what you can say about the sample.
• Examples:
  
  o This philosophy class is about logic, so most philosophy classes are probably about logic.

  o Most college students like to ski, because I asked a lot of students at several colleges in the Rocky Mountains, and most of them like to ski.

  o 11.3

3. Statistical Applications

• Import: whenever someone applies a generalization about a population (i.e., the reference class) to a member (or subset) of that population (e.g., from citizens of the USA to a particular citizen), then they have produced a statistical application; as with generalizations, these are common and it is good to be able to evaluate them

• Evaluation: a statistical application is good just in case (a) the reference class is well selected given the type of generalization involved, (b) the framework is broad enough (i.e., not too narrow and not too broad) to help us separate the relevant from the irrelevant features, and (c) the percentage of the reference class that has (or lacks) the feature is high enough to justify applying it to a member or members of that reference class

• Examples:
  
  o Many professors are liberal snobs, so O’Rourke is probably a liberal snob

  o Most Jayhawk fans were pretty broken up when Denzel Valentine channeled his inner Magic Johnson a couple of weeks ago, so O’Rourke was probably pretty broken up too

  o 11.4

4. Inference to the Best Explanation

• Import: any attempt to provide an explanation for facts or clues or evidence in general involves inference to the best explanation; this is an example of an argument form that is very, very common and structures our deliberation and decision in many cases

• Evaluation: an inference to the best explanation is good just in case (a) it is an explanation, and (b) it is deep, extensible, spare, modest, and not crazy, (c) it is better (on balance) along the dimensions in (b) than any other explanation

• Example: Although I fished here all day, I didn’t catch any fish, because there are no fish in this whole river. (12.1)
5. **Argument from Analogy**

- **Import:** analogical thinking is also a ubiquitous part of how we operate, since often in moving from things we know to things we don’t know, we rely on similarities to guide us.

- **Evaluation:** an argument from analogy is good just in case “(a) it cites more and closer analogies that are more important, (b) There are fewer or less important disanalogies between the object in the conclusion and the other objects, (c) the objects cited only in the premises are more diverse, and (d) the conclusion is weaker” (p. 206).

- **Examples:**
  
  - This landscape by Cézanne is beautiful. He did another painting of a similar scene around the same time. So it is probably beautiful, too.
  
  - “No man is an island entire of itself; every man is a piece of the continent, a part of the main” (Donne).