

CRITICAL THINKING 4

01 LESSON OBJECTIVES

- Learn how analogies are used in arguments.
- Successfully analyze and evaluate analogies in arguments.

02 OVERVIEW

An analogy shows how two things are similar. An argument from analogy claims that certain similarities are proof that there is another similarity. Analogies can't really prove a claim. They only provide easy to understand mental pictures of the possibility.

“Communism is like prohibition: it's a good idea but it won't work.”

The logical structure is this:

- Two things are similar in such-and-such ways.
- Therefore, they're probably similar in some other way.
- This other way is the basis of the claim.

Analogies are neither true nor false. Instead, they are strong or weak. A weak analogy means we should not accept the argument.

03 SIMPLE ANALOGIES

- | | |
|-------------------------------------|-------------------------------------|
| 1. lion - carnivore : rhino - _____ | 4. author : novel : _____ : song |
| 2. shark - fish : dolphin - _____ | 5. window - pane : book - _____ |
| 3. exercise - gym : eating - _____ | 6. sponge - porous : rubber - _____ |

04 EVALUATING ANALOGIES IN ARGUMENTS

How can we evaluate arguments based on analogies? First, consider factors such as these:

- the truth of the premises
- the number of relevant similarities
- the number relevant of dissimilarities

Second, restate the analogy in a simplified sentence pattern. If it looks too simple or even ridiculous, the analogy, and therefore the argument, may be weak. Here is an example.

There is no convincing argument to show that eating red meat is harmful. Too much of anything is harmful. Too much applesauce is harmful.

Simplified analogy sentence pattern:

eating too much red meat is like eating too much applesauce

05 **LAST LESSONS**

- Fallacies of relevance weaken an argument because they are based on premises that do not relate directly to the claim.
- Fallacies of insufficient evidence do not provide enough proof to support a claim.

06-A **REVIEW - NAME THAT FALLACY**

1. A: You should never discuss feminism with any man.
B: Why not?
A: All the men I know are sexists.
2. Everyone who buys this vacuum loves it, you will to.
3. Bring sex education into classrooms and soon we'll have to deal with pornography and rape in schools.
4. A: I believe it is the state's obligation to support the poor.
B: Of course, you would say that. You're poor and a communist.
5. A: There must be intelligent life forms on other planets.
B: There is no evidence that other life forms exist.
A: But there is no evidence that it doesn't exist either.
6. A: The government should purchase the new supersonic fighter jet.
B: The cost of the plane is too high. We should buy the more economical version.
A: That's proof the Member of the Parliament would like to see our country defenseless.
7. People with suicidal tendencies are crazy because nobody who is sane would try to kill himself.
8. The United States is no position to criticize other countries for human rights violation because there are so many instances of human rights violation by the USA.
9. I know it's troubling to see street people begging for money, looking depressed, but remember: if you make bad choices throughout your life, these are the sort of consequences you can expect.
10. Spinach can't be good for me. It tastes terrible.
11. You may think that she cheated on the test, but look at the poor little student! How would she feel if you made her take it again?
12. I'm not a doctor but I play one on TV and when adults get sick they use Vicks 44 cough medicine.

06-B MORE FALLACY REVIEW

Watch and listen to the short clips. Write the claim and premises. What logical fallacies are used?

Video	Argument	Fallacy
Bill O'Reilly		
Don't Sell Your Hair		
Justin Bieber		
Joe the Plumber		

07 ANALOGY PRACTICE

Read the arguments. Articulate the argument and identify the things that are being compared. Is the analogy weak or strong? Write the analogy in a simplified sentence pattern.

1. A watch and the universe are similar because they display order and complexity. Watches are the product of intelligent design. Therefore, the universe must be a product of intelligent design too.
2. Rock music is bad for you. I heard about a test done with cows. Two milk cows listened to music. One listened to Mozart and the other listened to heavy metal. The one that listened to Mozart produced more milk and acted more contented. The one that listened to heavy metal ate more, knocked over the milk bucket, and grew a horn.
3. Iced tea resembles whiskey. Iced tea doesn't impair my ability to operate a motorized vehicle. So, by analogy, I can drink two cups of Jack Daniel's and safely drive my car.

4. Attacking your next-door neighbors, killing them and taking their property is immoral. War involves going into a neighboring country, killing people and taking their property. Therefore, war is immoral.
5. We should not blame the media for deteriorating moral standards. Newspapers and TV are like weather reporters who report the facts. We do not blame weather reports for telling us that the weather is bad.
6. It is cruel to encourage the suffering of unwanted puppies and kittens. That is why we spay or neuter our pets. But surely people are more important than pets, and the suffering of an unwanted child is worse than the suffering of a dog. If we sterilize our pets to prevent suffering, then we should do the same for the poor and homeless.

08 MORE ANALOGY PRACTICE

Watch and listen to these short clips.

Write the claim, premise and analogy. Is it a strong analogy?

Video	Argument	Fallacy
Boyfriend		
Ice Cream		
Pizza Analogy		
NRA and Hitler		

09-A STUDENT A - EVEN MORE ANALOGY PRACTICE

Read these arguments to your partner. Your partner must:

1. Summarize the argument.
2. Identify the analogy and decide if it weak or strong.

Do you agree with your partner's answers?

- 1 Nobody would buy a car without first taking it for a test drive. Why then shouldn't two people live together before deciding if they want to get married?

- 2 If you can learn to hit a baseball, you can learn to speak a foreign language fluently. They both take practice.

- 3 My father did an excellent job of balancing the family budget, so they should let him try to balance the city budget.

- 4 When car dealers charge a lot of money for an automobile, people often assume it must be of higher quality than less expensive models. So, if Wexford College raises its tuition, people will think it's a better school.

10 CHECK LIST

1. Define 12 fallacies.
2. Construct your own argument from analogy for or against the death penalty.
3. Argue with an analogy that Brad Pitt would be a good president because he is a good actor.
4. Argue marijuana should be legalized with an analogy.

09-B STUDENT B - EVEN MORE ANALOGY PRACTICE

Read these arguments to your partner. Your partner must:

1. Summarize the argument using the simplified sentence.
2. Identify the analogy and decide if it weak or strong.

Do you agree with your partner's answers?

- 1 Life is just like chess. It's a complicated game, but you can win if you learn the rules and cheat a little.
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- 2 An umpire won't give you first base for swinging hard in baseball. So, a teacher shouldn't give you a passing grade just for trying hard.
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- 3 Animals are like human beings. They feel pain and pleasure and are part of the same chain of evolution. It is wrong to eat human beings, so it must be wrong to eat animals.
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- 4 Nature is cruel. It is our right to be cruel as well.
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ANSWERS

1. lion - carnivore : rhino - herbivore
2. shark - fish : dolphin - mammal
3. zebra - stripes : giraffe - spots
4. exercise - gym : eating - restaurant
5. author : novel : : composer : song
6. marathon - race : hibernation - sleep
7. window - pane : book - page
8. sponge - porous : rubber - elastic

04-A REVIEW - NAME THAT FALLACY

Hasty generalization
bandwagon
Slippery slope
Ad hominem
Appeal to ignorance
Straw man

Begging the question
Tu Quoque (you too)
False alternatives
Post hoc questionable cause
red herring
appeal to authority

04-B MORE PRACTICE

V5. Bill O'Reilly

Argument

The man says it's easier to believe in god because we can't explain the formation of the universe.

Fallacy

appeal to ignorance

V2. Don't Sell Your Hair

Argument

The story says you should get a TV because it will prevent many bad things from happening.

Fallacy

slippery slope, clearly, very good

V7. Justin Bieber

Argument

The boy bought this because it really works and makes his life great.

Fallacy

appeal to authority, bandwagon

V8. Joe the Plumber

Argument

The man says thousands of people were killed because governments implemented gun control.

Fallacy

post hoc, a correlation not causation

08 MORE PRACTICE

Watch and listen to these short video clips. Write the claim and premises. What logical fallacies are used? Write a simplified sentence to isolate the premises and claims.

V1. Like It Or Not

Argument

Vote yes in the election because lawsuits might increase, churches go bankrupt and gay marriage taught in school.

Fallacy

slippery slope

V6. Freakonomics

Argument

The man says people used to stop ice cream because it caused polio in kids.

Fallacy

post hoc, a correlation not causation

V3. Beer Spot

Argument

The story you should trust this man's opinion about beer because he's the coolest guy in the world

Fallacy

appeal to authority

V4. George Bush

Argument

The president says you are a friend or enemy because there are only two choices.

Fallacy

false alternative
