

Short List of Fallacies

Learning to Think Logically
by Nathaniel Bluedorn and Hans Bluedorn

Avoiding the Question

1. *Red Herring*: Where someone introduces an irrelevant point into an argument. He may think (or he may want *us* to think) it proves his side, but it really doesn't.
 - Grizzly bears can't be dangerous – they look so cute.
 - When the presidential candidate was asked whether he'd name as a running mate someone who was opposed to abortion, he replied: "It would be incredibly presumptive for someone who has yet to earn his party's nomination to be picking a vice president. However, the main criterion I would use in choosing a running mate would be whether the person was capable of being president."
2. *Ad Hominem*: Where someone attacks an opponent's character, or his motives for believing something, instead of disproving his opponent's argument.
 - Jenny: "My uncle says that all murderers should be put to death because then nobody would want to murder anybody anymore." Sylvia: "Wasn't your uncle in jail once? I don't think that we can trust somebody's opinion who was once a criminal."
 - I know everybody thinks Einstein's theory of relativity is correct, but I can't accept it. Einstein believed in evolution.
3. *Genetic Fallacy*: Where someone condemns an argument because of where it began, how it began, or who began it.
 - Jenny: "I think abortion is the murder of innocent children." Clyde: "The only reason why you disagree with abortion is because you were abused as a child and you have never recovered from it."
 - Bert: "Mr Gritchus, why do you always wear suspenders and never a belt?" Mr Gritchus: "Because belts were developed in the military centuries ago and were used by soldiers. Since the military is evil, and belts came from the military, therefore I can't wear a belt."
4. *Tu Quoque (You Too)*: Where someone dismisses your viewpoint on an issue because you are yourself inconsistent in that very thing.
 - Fred: "I wouldn't smoke cigarettes if I were you. It is a bad habit and it will bring you all kinds of problems." Jake: "Don't tell me not to smoke. You do it, too."
 - "I don't see what is wrong with speeding – everybody does it."
5. *Faulty Appeal to Authority*: Where someone appeals to the authority of someone who has no special knowledge in the area they are discussing.
 - My car mechanic says the best way to fix computer problems is to just give the computer a good, sharp kick.
 - Bert: "I've been homeschooled all of my life, and I think it has helped me out a lot." Clyde: "The man

who has the highest IQ in the world said he didn't think homeschooling turned out good citizens. He said he didn't think homeschoolers received enough socialization, so they will become social misfits. Do you still think homeschooling is a good idea?"

6. *Appeal to the People*: Where someone claims his viewpoint is correct just because many other people agree with it.
 - Political Candidate: "My opponent says abortion is murder – despite the fact that a recent poll concluded 76% of Americans believe an abortion does not murder an innocent child."
 - It looks as if more people vacation in Florida than any other place. It must be the nicest place in America to visit.

Making Assumptions

1. *Circular Reasoning*: Where someone attempts to prove his conclusion by simply restating it. He says "P is true because Q is true, and Q is true because P is true."
 - Jimmy: Dad, why do I have to learn logic? Dad: Because it will help to develop your mind. Jimmy: Why will it develop my mind? Dad: Because it will help you think better.
2. *Equivocation*: Where the meaning of a word is changed in the middle of an argument.
 - If the English don't drive on the right side of the road, what are they doing on the wrong side?
 - Dad: "Son, when you grow up I want you to always be a responsible young man." Son: "But Dad, I am already very responsible. Whenever something breaks around here, it seems as if I am always responsible."
3. *Loaded Question*: Where someone asks one question which assumes the answer to a second question.
 - Neighbor: "Why do you like to disturb the neighborhood by playing your music so loud everybody can hear it a mile away?" [Does the neighbor really like to disturb the neighborhood?]
 - Judge: "Have you stopped beating your poor dog yet?" [Has he ever begun beating his dog?]
4. *Part-to-Whole*: Where someone asserts that what is true of part of something must also be true of the whole thing together.
 - Child: "Mommy, why is this feather pillow so heavy? It only has feathers in it and little feathers weigh hardly anything."
 - If I can break this bunch of sticks, one by one, Mommy, why can't I break a bunch of sticks together?
5. *Whole-to-Part*: Where someone asserts that what is true of something as a

whole must also be true of each of its parts. This is the reverse of the part-to-whole fallacy.

- If our bag of potato chips won't float when I throw it in the pond, why will one of my potato chips float by itself?
 - If I can't break this bunch of sticks, all at once, Mommy, shouldn't I be able to break each individual stick?
6. *Either-Or*: Where someone asserts that we must chose between two things, when in fact we have more alternatives.
 - Either you're an American or you are a Communist. You aren't from America, so you must be a Communist.
 - Either you believe in evolution, or you are totally irrational. You say you don't believe in evolution, so you must be irrational.

Statistical Fallacies

1. *Hasty Generalization*: Where someone generalizes about a class or group based upon a small and poor sample.
 - All plumbers are brilliant. I know a plumber who can calculate Pi to the 289,954th digit.
 - "Southerners talk fast. I was just on the phone with one and he sure talked fast."
2. *Weak Analogy*: Where someone claims that some items which have only a few minor similarities are practically the same in almost everything else.
 - Clyde: "I think it is all right for governments in developing countries to execute citizens who don't agree with the government. If you want to make an omelet, then you have to break a few eggs."
 - A cloud is 75% water. A watermelon is 75% water. Since a plane can fly through a cloud, therefore a plane can fly through a watermelon.
3. *Post-hoc-ergo-propter-hoc*: Where someone assumes that since A happened before B, A must have caused B.
 - Our rooster crows every morning. Then the sun comes up. Now do you understand how important roosters are?
 - Christianity came along in the first century, and a few hundred years after that, the Roman Empire fell. Christianity must have made it fall.
4. *Proof-by-lack-of-evidence*: Where someone claims something is true simply because nobody has yet given them any evidence to the contrary.
 - "There must be mountain lions living in Illinois, because I haven't seen any proof that none exist."
 - No evidence has been found that life does not exist on other planets. Therefore, we are not alone in the universe.

Propaganda

1. *Appeal to Fear*: Where someone moves

you to fear the consequences of not doing what he wants.

- Prosecuting Attorney: “Ladies and gentlemen of the jury, I urge you to convict John Jones of this crime of murder. We need to put him where he can never commit any crimes. If you don’t convict him, you may be his next victim.”
- Restaurant owner: “You no lika’ da’ pizzas? I send over my cousin Tony for a little change a’ mind. He maka’ you lika’ da’ pizzas.”
- Do you know what kind of damage a loose cow can do on your farm. Imagine what would happen if your electric fence failed and your cows wandered into the neighbors field. Buy a “Zapper” electric fence and you won’t have to worry about it.

2. *Appeal to Pity*: Where someone urges us to do something only because we pity him, or we pity something associated with him.

- Radio advertisement: “Mr Jones lost the last election because his opponent used a smear campaign to discredit him. Mr Jones lost the election before that because of voter fraud. Don’t you think it is about time you voted for Mr Jones?”
- Motorist: “But officer, this is the fifth ticket I’ve been given this year. If I get another ticket, then they will take my license away, and I won’t be able to drive to work. My wife and children will starve.”

3. *Bandwagon*: Where someone pressures us to do something just because many other people like us are doing it.

- Clyde: “Dad, can I go to see the movie “Attack of the Killer Wombats?” Dad: “No, son, you can’t go. I heard that movie has bad things in it.” Clyde: “Awe, come on, everybody’s going to see it.”
- “More Americans get their news from ABC than from any other source.”

4. *Exigency*: Where someone offers nothing more than a time limit as a reason for us to do what he wants.

- Genuine lead teacups! Now 95% off! Hurry, while supplies last!
- Mr: “Come on, why don’t you marry me today?” Miss: “Oh, I can’t make up my mind. I only met you this morning. Don’t you think it is a little early.” Mr: “I’m leaving tonight and won’t be back for several years. If you don’t marry me now, we may never have another chance.”

5. *Repetition*: Where a message is repeated loudly and very often in the hope that it will eventually be believed.

- “Eat Sugarloops for breakfast! Eat Sugarloops for lunch! Eat Sugarloops for supper! Eat Sugarloops all the time! You will love Sugarloops.

6. *Transfer*: Where an advertiser gets us to associate our good or bad feelings about one thing, to another unrelated thing.

- In a commercial, a handsome man with big bulging muscles is seen working out on the new “Gutwrencher” exercise machine. The announcer says, “Tone up your muscles in two weeks!”
- In a commercial, Gara Gorgeous, the famous movie star with beautiful hair, holds up a bottle of shampoo and says. “Use Shimmer Bounce shampoo for better looking and better smelling hair.”
- “Purefresh Mountain Spring Water”

7. *Snob Appeal*: Where someone encourages us to think his product would

make us better, or stand out, from everybody else.

- Advertisement: “Why read those boring logic books like everybody else does? You know you’re better than that. You need more intellectual stimulation. Read *The Fallacy Detective*. Be more logical than the rest.”
- Buy skunk brand perfume. You will stand out in the crowd.

8. *Appeal to Tradition*: Where we are encouraged to buy a product or do something because it is associated with something old.

- A black and white photograph of man building a guitar. The caption reads: “Play Martin Guitars. Our expert guitar craftsmen build guitars using only the most time honored traditions.”
- A black and white photograph of an old 1920’s coupe on one page, and on the next a picture of a smart modern looking coupe whizzing down the road. Caption reads: “Ford Thunderbird: yesterday, today and tomorrow.”

9. *Appeal to Hi-tech*: Where someone urges us to buy something because it is the “latest thing” – but not necessarily because it is the best thing.

- Clyde: “Hey Bert, you need to buy one of these new Niko shoes. They have hi-tech “Dinotraction.” It’s a new special feature that helps you cling onto the back of a running plesiosaur without falling off.”
- Our “Laundry Ball” cleans your clothes automatically with our patented method of defusing the ionization of the fetezoic acids and implanting a catalyst.

SUGGESTED COURSE OF STUDY FOR STUDENTS BELOW AGE THIRTEEN		
Age	Books to Use	Comments
Before 10	We do not recommend doing workbooks with children before age 10. Therefore we do not use either the <i>Primary</i> book or <i>Book 1</i> of <i>Building Thinking Skills</i> .	
10	<i>Building Thinking Skills Book 2</i>	Teacher’s Manual not needed. Problems are easy for a parent to solve. Covers: Describing shapes, and words; Following directions; Antonyms and Synonyms; Analogy; Parts of a whole; Mapping and directionality; Logical connectives; Pattern folding; Tracking, rotation, and Reflection; Mental manipulation of two-dimensional objects; etc.
11	<i>Building Thinking Skills Book 3 Figural</i>	Teacher’s Manual recommended. Problems can be challenging even for parent. Covers: Deductive reasoning; Denotation/ Connotation; Following directions; Map skills; Time ranking; Degree of meaning; Logical connectives; Flowcharts; Parts of a whole; Branching diagrams; Analogy; Congruence; etc.
12	<i>Building Thinking Skills Book 3 Verbal</i>	

SUGGESTED COURSE OF STUDY FOR STUDENTS AGE THIRTEEN AND UP		
Years or Steps	Books	Comments
1	<i>The Fallacy Detective</i> and <i>Critical Thinking, Book 1</i>	Many homeschoolers start logic with the wrong books and find it is very difficult without a teacher who already knows logic. Both these books teach logical fallacies, and <i>The Fallacy Detective</i> also introduces the biblical idea of the inquiring mind.
2	<i>Critical Thinking, Book 2</i>	This second book further develops some of the material in <i>Critical Thinking Book 1</i> .
3	<i>Introductory Logic</i> video series by Wilson & Nance	We recommend using the video series featuring James Nance. The textbook alone is not self-teaching enough. This series covers traditional categorical syllogisms from a Christian perspective.

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Canon Press, Box 8741, Moscow, Idaho, 83843 – *Introductory Logic video series by Wilson and Nance*

The Critical Thinking Company, Box 448, Pacific Grove, California, 93950 – *Building Thinking Skills by Sandra Parks and Howard Black, Critical Thinking by Anita Harnadek*

Christian Logic, PO Box 46, Muscatine, Iowa 52761 – *The Fallacy Detective by Nathaniel Bluedorn and Hans Bluedorn*

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