BOSTON DEBATE LEAGUE
Transforming School Culture Through Debate

What is valid evidence?

Definitions

Evidence: Any factual information presented to support a claim. Evidence may be strong or weak. Evidence is weak when it can be shown to lack **validity** or **relevance**.

Validity: the degree to which something is well-founded, true, or accurate.

Relevance: the degree to which something relates or is connected to a topic

What makes a piece of evidence VALID?

A piece of evidence is **VALID** when it is **accurate** and **reliable**. Someone can question whether valid evidence is relevant to your argument, but they **cannot deny that it's true**.

VALID EVIDENCE CHECKLIST

When considering if your evidence is valid, consider:

- ✔ **Who is the source? Is the source well-informed about the topic?**
- ✔ **What, if any, research is cited?**
- ✔ **Does your evidence include specific and proveable facts?**

Deciding whether or not evidence is valid depends on the subject you are working on.

- **MATH:** You can assume that the following mathematical evidence is valid:
  - Accurate, numerical data(which is to say, it can be proven by mathematical calculations)
  - Established mathematical theorems
    - *Example*: "She owns *lots* of shoes" is not a valid mathematical statement, since we value precision in math. If we know that she owns *15* pairs of shoes, this is valid evidence. It can be proven by counting.
- **SCIENCE*:*** Scientific evidence is considered valid when it:
  - Is accurate (eg, precise measurements and established formulas), AND
  - Has been established as true by rigorous scientific testing, experimentation, or observation
    - *Example:* "Cell phones cause brain cancer" would not be considered valid evidence, because no scientific studies have proven that this is true. The statement, "Cigarette smoking increases your chances of getting lung cancer" is considered valid because this has been rigorously tested using the scientific method.
- **HISTORY*:*** Historical evidence is considered valid when it is:
  - Historically accurate
    - *Example:* "Abraham Lincoln was a Democrat" is not accurate; he was a Republican. I
  - Comes from a reliable source
    - *Example:* If you read in a published biography of Abraham Lincoln by a well-known scholar that he wrote several drafts of the Emancipation Proclamation, you can assume that this is valid, since it comes from a reliable source. If you saw a movie

that portrays Lincoln as a vampire hunter, you cannot assume that this is valid, since the film is a work of fiction.

- **ENGLISH**: Literary evidence is considered valid when it comes directly from the work of literature you are studying.

Questioning an Argument

WHY IS ASKING QUESTIONS SO IMPORTANT TO ARGUMENTATION?

The process of building an argument begins with questions. Arguments are often answers to debatable questions, such as "Who is the best basketball player of all time?"

Questions are the tools we use to test out how strong an argument is.

WHAT KINDS OF QUESTIONS DO WE ASK?

In EBA, **we ask questions to gather more information about an argument.**

1.) Is the evidence SUFFICIENT (enough)?

These questions ask if the evidence is enough to support the claim. Often, arguments can get stronger if more evidence is added to support all parts of the claim. If you think about the stool metaphor, the stool doesn't have enough legs. If a person sits on an argument stool with insufficient evidence, the stool will fall.

The evidence in the following argument is relevant, but it is insufficient.

Claim: Michael Jordan was the best basketball player of all time.
Evidence: Jordan has the highest scoring average of any NBA player (more than 30 points/game).

Sample Questions:

- "What other important skills was Jordan great at??
- "In what ways was Jordan better than other all-time great players?
- "Did Jordan win any important awards?"

An argument with insufficient evidence:

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2.) What are the ASSUMPTIONS (hidden beliefs the argument rests on)?

Sometimes an argument looks really strong: there is a clear claim, supported by relevant evidence. But if the argument rests on a faulty assumption, the entire argument collapses. Using the stool metaphor, the glue that is used is weak. The stool looks fine until someone sits on it, and the stool falls apart.

Claim: Men are better leaders than women.
Evidence:

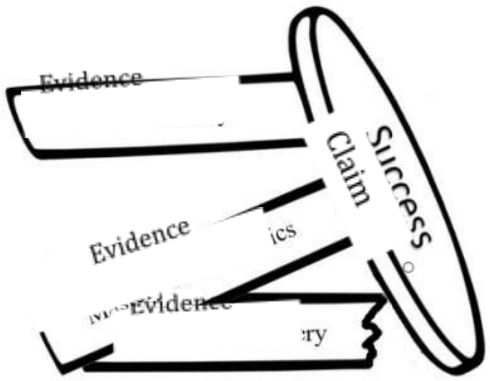
- There are more male than female leaders in all major fields: business, politics, education, and the military.
- Across cultures and throughout history, men are celebrated and remembered for their leadership.
- The "Founding Fathers" of our country are all men.

Reasoning: The only way that men could achieve all of these things is if they are better leaders. If women were great leaders, we would see many more of them in positions of leadership, both in the past and now.

Sample Questions

- *Find Out More Evidence:*
  - How, if at all, does the path to leadership differ for men and women – now and in the past?
  - Which, if any, fields have more female leaders than male leaders?
  - When have women been celebrated for their leadership?
  - Who determines when someone becomes a "leader?"
- *Define Terms:*
  - How are you defining "leader?"
  - What are the qualities of a "good" leader?
- *Define Philosophy/Beliefs:*
  - Are leaders "born" or "made?"
  - What is specific to men that makes them better leaders than women?

An argument resting on a faulty assumption:



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The DRMO model

VOCABULARY

- **Counterclaim:** a claim that opposes an original claim
- **Counterargument:** a complete argument that responds to specific parts of an opposing argument, using counterclaim, evidence, and reasoning

What my opponent just said is not true. **(EVIDENCE is NOT VALID.)**	Based on the fact that [why it is not true], there is no reason to believe [what they said]. The main flaw in [what they said] is [why it is not true]
Reverse: What my opponent just said actually helps my argument. **(REASONING is WEAK.)**	The fact that [what they said] actually shows [your claim] because [how it helps your argument]. [What they said] demonstrates [how it helps your argument], which helps prove [your claim]. On the contrary, one can conclude [how it helps your argument] from [what they said], thereby reinforcing the assertion [your claim].
Minimize: What my opponent just said is true, but it is not a big deal. **(EVIDENCE is valid, but it's IRRELEVANT.)**	While it may be true that [what they said], this does not provide enough reason to disprove [your claim] While [what they said] may be the case, it has no impact on the fact that [your claim]. On the contrary, [what they said] is not important in the big picture because [reason why what they said doesn't matter].
Outweigh: What my opponent just said is true, but my point is more important. **(EVIDENCE is valid and relevant, but it's NOT AS RELEVANT as my evidence.)**	While it may be true that [what they said], what really matters is [what is more important about your argument], because [what makes it more important]. Though [what they said] is true, the fact remains [what is more important about your argument]. [What is more important about your argument] is of far greater concern than [what they said] because [what makes it more important].



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Adams, Scott. (2000). *Dilbert: The joy of work: Guide to finding happiness at the expense of your co-workers*, pp. 152-156. London: Boxtree.

You are wrong because:

For your convenience, I have circled the brain malfunction(s) that most closely resemble(s) the one(s) you recently made on the topic of (fill in topic): _____.

1. AMAZINGLY BAD ANALOGY

   Example: You can train a dog to fetch a stick. Therefore, you can train a potato to dance.

2. FAULTY CAUSE AND EFFECT

   Example: On the basis of my observations, wearing huge pants makes you fat.

3. I AM THE WORLD

   Example: I don't listen to country music. Therefore, country music is not popular.

4. IGNORING EVERYTHING SCIENCE KNOWS ABOUT THE BRAIN

   Example: People choose to be obese/gay/alcoholic because they prefer the lifestyle.

5. THE FEW ARE THE SAME AS THE WHOLE

   Example: Some Elbonians are animal rights activists. Some Elbonians wear fur coats. Therefore, Elbonians are hypocrites.

6. GENERALIZING FROM SELF

   Example: I'm a liar. Therefore, I don't believe what you're saying.

7. ARGUMENT BY BIZARRE DEFINITION

   Example: He's not a criminal. He just does things that are against the law.

8. TOTAL LOGICAL DISCONNECT

   Example: I enjoy pasta because my house is made of bricks.

9. JUDGING THINGS WITHOUT COMPARISON TO ALTERNATIVES

   Example: I don't invest in U.S. Treasury bills. There's too much risk.

10. ANYTHING YOU DON'T UNDERSTAND IS EASY TO DO

    Example: If you have the right tools, how hard could it be to generate nuclear fission at home?

11. IGNORANCE OF STATISTICS

Example: I'm putting ALL of my money on the lottery this week because the jackpot is so big.

12. IGNORING THE DOWNSIDE RISK

    Example: I know that bungee jumping could kill me, but it's three seconds of great fun!

13. SUBSTITUTING FAMOUS QUOTES FOR COMMON SENSE

    Example: Remember, "All things come to those who wait." So don't bother looking for a job.

14. IRRELEVANT COMPARISONS

    Example: A hundred dollars is a good price for a toaster, compared to buying a Ferrari.

15. CIRCULAR REASONING

    Example: I'm correct because I'm smarter than you. And I must be smarter than you because I'm correct.

16. INCOMPLETENESS AS PROOF OF DEFECT

    Example: Your theory of gravity doesn't address the question of why there are no unicorns, so it must be wrong.

17. IGNORING THE ADVICE OF EXPERTS WITHOUT A GOOD REASON

    Example: Sure, the experts think you shouldn't ride a bicycle into the eye of a hurricane, but I have my own theory.

18. FOLLOWING THE ADVICE OF KNOWN IDIOTS

    Example: Uncle Billy says pork makes you smarter. That's good enough for me!

19. REACHING BIZARRE CONCLUSIONS WITHOUT ANY INFORMATION

    Example: The car won't start. I'm certain the spark plugs have been stolen by rogue clowns.

20. FAULTY PATTERN RECOGNITION

    Example: His last six wives were murdered mysteriously. I hope to be wife number seven.

21. FAILURE TO RECOGNIZE WHAT'S IMPORTANT

    Example: My house is on fire! Quick, call the post office and tell them to hold my mail!

22. UNCLEAR ON THE CONCEPT OF SUNK COSTS

    Example: We've spent millions developing a water-powered pogo stick. We can't stop investing now or it will all be wasted.

23. OVERAPPLICATION OF OCCAM'S RAZOR (WHICH SAYS THE SIMPLEST EXPLANATION IS USUALLY RIGHT)

Example: The simplest explanation for the moon landings is that they were hoaxes.

24. IGNORING ALL ANECDOTAL EVIDENCE

Example: I always get hives immediately after eating strawberries. But without a scientifically controlled experiment, it's not reliable data. So I continue to eat strawberries every day, since I can't tell if they cause hives.

25. INABILITY TO UNDERSTAND THAT SOME THINGS HAVE MULTIPLE CAUSES

Example: The Beatles were popular for one reason only: They were good singers.

26. JUDGING THE WHOLE BY ONE OF ITS CHARACTERISTICS

Example: The sun causes sunburns. Therefore, the planet would be better off without the sun.

27. BLINDING FLASHES OF THE OBVIOUS

Example: If everyone had more money, we could eliminate poverty.

28. BLAMING THE TOOL

Example: I bought an encyclopedia but I'm still stupid. This encyclopedia must be defective.

29. HALLUCINATIONS OF REALITY

Example: I got my facts from a talking tree.

30. TAKING THINGS TO THEIR ILLOGICAL CONCLUSION

Example: If you let your barber cut your hair, the next thing you know he'll be lopping off your limbs!

31. FAILURE TO UNDERSTAND WHY RULES DON'T HAVE EXCEPTIONS

Example: It should be legal to shoplift, as long as you don't take enough to hurt the company's earnings.

32. PROOF BY LACK OF EVIDENCE

Example: I've never seen you drunk, so you must be one of those Amish people.

An Explanation of an Argument: Toulmin's model

Component	Description	Role/Purpose	Evaluation
A Claim:	Statement about a situation or relationship.	Sets out what will be "proven". *The essence of your argument.*	Clear language. States either ● a fact ● a causal relation
Data:	*Information in the form of:* Statistics, experiments, polls & surveys, historical examples, OR experts' opinions.	The data (also known as evidence) provide a reason for believing the claim. *"Sound" evidence is the bedrock of a good argument.*	● Comes from a credible source. ● Relates to the topic at hand. ● Is appropriate to your audience: enough information without being too complex.
Warrants:	Statement(s) which serve to interpret the meaning of the data.	Supports the data as valid to the claim. Explains why the data are supportive (though may be implicit). *Solid warrants are the glue of a good argument.*	● Uses reasoning that is sound: no logical fallacies or illogical arguments. ● Makes your assumptions explicit. ● Defends the claim as the most likely (or highly likely) interpretation of the data.
Relevance:	A general sense that all of the above matter and are interconnected.	Explains what the point of the claim is in relation to the thesis. *Answers the questions:* *"So what? Why do we care?"*	● Claim relates to the thesis. ● Use of argument is appropriate for particular audience.

Creating Coherent Arguments

Below you will find the three components of a number of arguments. In each case, for one or more of the components you are given multiple choices. Circle the appropriate choice to create a coherent argument.

1.	Claim:	Capital punishment is an effective policy
	Data:	a. People don't want to die b. We've been using it since ancient times c. Crime is low in states with capital punishment d. Since Oregon started using capital punishment crime has gone down
	Warrant:	If crime low, the current policies must be working
2.	Claim:	Drivers over the age of seventy should have to take a road test every year to renew their driver's licenses.
	Data:	a. old people don't know how to drive. b. My grandpa is a horrible driver c. x% of accidents involving old people result from lack of awareness d. old people drive slow
	Warrant:	Responsiveness to the people around you is an important part of good driving.
3.	Claim:	We need to have stronger gun control laws
	Data:	a. death from firearms has increased X% in the past Z years b. My grandpa owns a gun c. kids are killing kids d. Regulation of guns will create a safer environment
	Warrant:	a. Lack of laws has lead to (the data) b. deaths are up because guns are easier to get a hold of than ever before.
4.	Claim:	a. We should change our present government b. We should keep our present government c. Our constitution is the best in the world d. My grandpa likes our constitution
	Data:	The US constitution has been in use for over 200 years
	Warrant:	Only things that work stick around
5.	Claim:	a. We should change our present government b. We should keep our present government c. Our constitution is the best in the world d. My grandpa likes our constitution
	Data:	The US constitution has been in use for over 200 years
	Warrant:	The constitution has not been adapted to recent times

6.	Claim:	a. Nuclear power is a safe form of energy creation. b. My grandpa worked at a nuclear power plant once c. Nuclear power is a dangerous form of energy creation. d. Nuclear power is an effective form of energy creation
	Data:	Over X hundred nuclear plants are in existence in the world today Y Number of accidents have occurred to date
	Warrant:	Y:X is a very good ratio

7.	Claim:	a. Nuclear power is a safe form of energy creation. b. My grandpa worked at a nuclear power plant once c. Nuclear power is a dangerous form of energy creation. d. Nuclear power is an effective form of energy creation
	Data:	Over X hundred nuclear plants are in existence in the world today Y Number of accidents have occurred to date
	Warrant:	A nuclear accident is a severe problem.

8.	Claim:	Every School bus should be equipped with seatbelts
	Data:	Every year, X school buses are involved in an accident
	Warrant:	a. accidents are dangerous b. my grandpa is a bad driver c. Every year Y number of students are injured as a result of X accidents d. Statistically speaking, Z number of students will be injured over Q years

9.	Claim:	We should hire only college graduates for our sales department
	Data:	a. College provides people with a good education b. my grandpa is a good salesman c. public speaking skills are key to sales d. Our products are complicated and our customers have detailed needs.
	Warrant:	a. college teaches public speaking b. my grandpa went to college c. college teaches people how to deal with information d. A good education is important for sales

10.	Claim:	a. Everyone should meet my grandpa b. everyone should adopt a grandpa c. people like to be grandpas d. Grandpas are cool guys
	Data:	a. my grandpa is a cool guy b. there are X thousand old guys without grandpas c. grandpas are always smiling
	Warrant:	a. people like to meet cool guys. b. If you meet my grandpa you'll like him c. there are lots of grandpa's that are happy

Advanced Problems…

Working with a partner, please try to solve these problems.

11. It is difficult to keep deep wounds free of bacteria. Even strong antibiotics fail to kill the bacteria that live in such wounds. However, many physicians have succeeded in eliminating bacteria from deep wounds by packing the wound with a sweet substance like sugar.

Which one of the following, if true, most helps to explain why treating deep wounds with sugar as described above is successful?

(A) Bacteria that live in deep wounds thrive in a moist environment, and sugar has a dehydrating effect.
(B) Sugar that is nearly pure is readily available for use in medical treatments.
(C) Many kinds of bacteria can use sugar as a nutrient and will reproduce rapidly when sugar is available to them.
(D) Some foods that contain sugar can weaken the effects of certain antibiotics.
(E) Strong antibiotics were developed only recently, but the use of sugar as a treatment for wounds dates back to ancient times.

12. Fines levied against those responsible for certain environmentally damaging accidents are now so high that it costs a company responsible for such an accident more to pay the fine that it would have cost to adopt measures that would have prevented the accident. Therefore, since businesses value their profits, those that might have such accidents will now install adequate environmental safeguards.

Which one of the following, if true, most seriously weakens the argument?

(A) Businesses generally greatly underestimate the risk of future accidents.
(B) Businesses are as concerned with long-term as they are with short-term strategies for maximizing profits.
(C) Businesses generally do the environmentally "right" thing only if doing so makes good business sense.
(D) Businesses treat fines that are levied against them as an ordinary business expense.
(E) Businesses are leaning to exploit the public's environmental awareness in promoting themselves.

13. The formation of hurricanes that threaten the United States mainland is triggered by high atmospheric winds off the western coast of Africa. When abundant rain falls in sub-Saharan Africa, hurricanes afterward hit the United States mainland with particular frequency. Therefore, the abundant rains must somehow promote the ability of the winds to form hurricanes.

Which one of the following arguments contains a flaw that is most similar to one in the argument above?

(A) People who exercise vigorously ten to sleep well. Therefore, people who exercise vigorously ten to be healthy.
(B) Cars drive faster on long city blocks than on short city blocks. Long blocks are thus more dangerous for pedestrians that shore blocks.
(C) Many people who late become successful entrepreneurs played competitive sports in college. Therefore, playing competitive sports must enhance a person's entrepreneurial ability.
(D) The blossoms of the chicory plant cost up in full sun. Therefore, the chicory plant's blossoms must open up in the dark.

(E) Events in Eastern Europe can affect the political mood in Central America. Therefore, liberalization in Eastern Europe will lead to liberalization in Central America.

14. Some of the most prosperous nations in the world have experienced a pronounced drop in national savings-rates - the percentage of after-tax income an average household saves. This trend will undoubtedly continue if the average age of these nations' populations continues to rise, since older people have fewer reasons to save than do younger people.

Which one of the following indicates an error in the reasoning leading to the prediction above?

(A) It fails to specify the many reasons younger people have for saving money, and it fails to identify which of those reasons is the strongest.
(B) It assumes that a negative savings rate - the result of the average household's spending all of its after-tax income as well as some of its existing savings - cannot ever come about in any nation.
(C) It fails to cite statistics showing that the average age of the population of certain nations is rising.
(D) It only takes into account the comparative number of reasons older and younger people, respectively, have for saving, and not the comparative strength of those reasons.
(E) It uses after-tax income as the base for computing the national savings rate without establishing by argument that after-tax income is a more appropriate base than before-tax income.

15. Several cosmetics firms are committed to the active development, validation, and adoption of new product-safety tests that use cultures of human cells. They argue that the new tests serve to reduce the need for tests on live animals.

The statements above most strongly support which one of the following conclusions?

(A) The pressure on cosmetics firms to cease conducting experiments that use live animals was initiated by groups of social activists.
(B) Consumers are no more likely to buy products whose safety was tested on cultures of human cells than they are to buy products whose safety was tested on animals.
(C) Financial consultants for the cosmetics firms believe that using human cell cultures rather than live animals to test product safety will cost the firm less in actual product-development costs.
(D) Researchers in the cosmetics firms believe that fewer tests of products will be needed if cell cultures rather than live animals are used.
(E) Managers of the cosmetics firms believe that it is better for their firms not to perform tests on live animals if there is an acceptable alternative way of determining product safety.

16. In the United States proven oil reserves - the amount of oil considered extractable from known fields - are at the same level as they were ten years ago. Yet over this same period no new oil fields of any consequence have been discovered, and the annual consumption of domestically produced oil has increased.

Which one of the following, if true, best reconciles the discrepancy described above?

(A) Over the past decade the annual consumption of imported oil has increased more rapidly than that of domestic oil in the United States.
(B) Conservation measures have lowered the rate of growth of domestic oil consumption from what it was a decade ago.
(C) Oil exploration in the United States has slowed due to increased concern over the environmental impact of such exploration.
(D) The price of domestically produced oil has fallen substantially over the past decade.
(E) Due to technological advances over the last decade, much oil previously considered unextractable is now considered extractable.

17. Train service suffers when a railroad combines commuter and freight service. By dividing its attention between its freight and commuter customers, a railroad serves neither particularly well. Therefore, if a railroad is going to be a successful business, then it must concentrate exclusively on one of these two markets.

For the argument to be logically correct, it must make which one of the following assumptions?

(A) Commuter and freight service have little in common with each other.
(B) The first priority of a railroad is to be a successful business.
(C) Unless a railroad serves its customers well, it will not be a successful business.
(D) If a railroad concentrates on commuter service, it will be a successful business.
(E) Railroad commuters rarely want freight service as well.

Logical Fallacies

Fallacies are faulty forms of arguments or reasoning. They weaken an overall persuasive attempt and undermine the credibility of the speaker. It is important to understand what a fallacy is and realize some of the more common ones. There are many more types of fallacies than listed here. By recognizing them in our own work we become more effective and ethical. Additionally, the more we recognize them in others work the more critical thinking we can do. Finally, by understanding what *doesn't* make a good argument, we me better understand what *does*.

1. **Hasty Generalization-** generalizing that all cases are the same based on a few instances. Making a conclusion before all the facts are in.

Example: *I saw a bunch of college students eating McDonald's the other day, all college students must eat fast food.*

2. **Faulty Use of Authority-** citing experts support as proof. Often times the "expert" may have nothing to do with the actual claim.

Example: *Britney Spears uses Clarion makeup, it must be good makeup because she's pretty*

3. **Post Hoc or Doubtful Cause-** because one event followed another then they must be connected.

Example: *the other day I got my oil changed, today my car broke down, Jiffy Lube must have done something*

4. **False Analogy-** a comparison of two situations which are actually not alike upon close examination.

Example: *Going to college is a lot like working a sixty hour a week job.*

5. **Fatal Attribution Error-** focusing on an actor's character, rather than the interaction between the actor and the environment.

Example: *Of course Ken Lay bilked millions from retirees: He was a very, very bad person. But that is all we have here, of course: a few bad apples. Yep, no problems with loose regulations.*

6. **False Dilemma-** the proposal that things are either-or, when in fact there are multiple possibilities.

Example: *you're either with us or you're against us!*

7. **Slippery Slope-** one step will inevitably lead to another, usually undesirable, step. This concluding step is often multiple steps beyond the first.

Example: *If we open up marriage to all people, our society will begin to crumble*

SUB-FALLACY: **Appeal to Tradition**. If we abandon one tradition, we'll get rid of them all!

8. **Circular Reasoning -** assumes that the question being argued has already been proved. This is often called "begging the question".

Example*:* *University studies is clearly working because no flaws have been brought to the President's attention.*

9. **Two Wrongs Make a Right-** the idea that because one side is making a wrong, it is ok for the other side to make a wrong.

Example: *Palestinians are using suicide bombers in Israel so Israel has a right to bomb their homes*

10. **Non Sequitur-** the evidence does not follow the claim, they are not related. Similar to Post Hoc, simply not a chronological connection.

Example: *I saw college students eating McDonald's again, they must all be poor and not know how to eat.*

11. **Ad Populum-** use of polling data to avoid providing real reasoning.

Example: *Sixty percent of the American people believe that the war in Iraq is related to the war on terrorism; that shows there is a link.*

12. **Appeal to Common Sense-** opposite of the Appeal to Authority: ignore all the experts. Could also be called the "appeal to ignorance"

Example: *Folks with a fancy education think that social welfare programs are great, but common sense says that programs are just rewarding lazy people who won't work.*

13. **Faulty Emotional Appeals-** arguments that rely on emotions that are not connected to the actual claim, draw attention away from what is actually going on, or are used to mislead the listeners understanding of what is actually being argued.

Example: *You should give me the money because I've been down on my luck, and its really killing me to not be able to buy nice food for my girlfriend*

14. **Relativism-** opinions are split, so there must be no right answer.

Example: *Half the country believes that spying on US citizens is OK, half believes it's a violation of our privacy. That just shows that it's all a matter of opinion.*

Adams, Scott. (2002.) "Weasel debating techniques." *Dilbert and the way of the weasel*, pp. 234-238. NY: HarperCollins.

Nothing makes a weasel argue more vigorously than being proven wrong…Here are some things you'll never hear a weasel say:

- I'll be darned—the information you gave me has changed my opinion. I was completely wrong.
- Now that you mention it, maybe all those Nobel Prize-winning scientists do know more about science than I do.
- I'm ignorant of the important facts so it wouldn't make any sense to offer my opinion.

The traditional method for approaching an argument is to bring up relevant facts and weave them together in a logical framework. Unfortunately, that won't work against weasels because they use a superior debating method that involves conjuring up hallucinations, carefully arranging them in a tangled lump, and declaring victory. I recommend that you use this method too because the traditional method will only leave you frustrated. The weasel techniques are detailed below using a handy abbreviation and numbering system where WDT stands for "weasel debating techniques". Feel free to use this shorthand at your next meeting, as in, "Hey, Wally, are you giving me a WDT3?"

WDT 1: Restate your opponent's ideas using bizarre absolutes and then refute them, like this:



WDT 2: Make comparisons to Hitler. This is a surprisingly flexible technique because Hitler was a busy guy. He did everything from eating to painting landscapes to attacking the world. So if someone argues that napping is good for you, point out that Hitler liked napping too.

WDT 3: Make a good point about an unrelated topic. For example, if someone is arguing that airline travel is relatively safe, and you—against all data—are arguing the other side, point out that swimming is good exercise. When your opponent looks stunned and says, "Yes, but…" cut him off in mid-sentence, declare victory, and excuse yourself from the room.

WDT 4: Fill all the airtime to appear knowledgeable and eliminate the opportunity for rebuttal.



WDT 5: Accuse your opponent of being insensitive. This method works because it's always true. I'm willing to bet that even conjoined twins complain that the other is insensitive, e.g., "You don't know what it's like to be the head on the left!"

WDT 6: For every respectable human quality there is an insulting word that means the same thing. For example, accuse open-minded people of being flakes. Accuse cautious people of being afraid of change.



WDT 7: Add weight to your opinions by invoking the opinions of unnamed multitudes, as in, "Everyone agrees with me." A weasel defines everyone as at least one other weasel.



WDT 8: The tax code is a valuable debating tool for weasels because it's too complicated to understand. That means you can refer to the tax code to support any argument. I can't tell you how many times weasels have—with straight faces—suggested I invest in money-losing ventures so that I can get valuable tax write-offs. Apparently the theory is that the more money I lose the better off I will be.

Below are ten arguments which contain fallacies. Match the fallacy from the list below to the argument. Each fallacy is used only once, but not all fallacies are used.

Hasty generalization	False dilemma	Non-sequitur
Faulty use of authority	Slippery slope	Ad populum
Post hoc (doubtful cause)	Appeal to tradition	Appeal to common sense
False analogy	Circular reasoning	Faulty emotional appeal
Fatal attribution error	Two wrongs make a right…	Relativism

1. After talking with a few classmates, I found that they too were shut out of all the science courses offered for non-science majors. Hence, the university should offer more courses in geology, biology, chemistry, and physics for the non-science major.

2. Since the Great Society's expansion of the welfare state, there has been an increase in the use of illegal drugs. Consequently, if we eliminate the welfare programs that were created since this time, we will reduce the use of illegal drugs.

3. Scientology must be a credible way of understanding the world. After all, many famous people, including Tom Cruise and John Travolta, believe in it.

4. A January poll showed that seventy percent of the American people believe that UFOs exist. Therefore, we should recognize that they exist.

5. One of the most important reasons why the all-male military schools should not admit women is that they have always excluded women. To allow women into these schools would mean ending a long and glorious tradition.

6. I do not agree with Reverend Al Sharpton's boycott of Burger King and his claim that the fast food restaurant shows no concern for black communities, because he has made many antiwhie statements in the past.

7. All leftists do is criticize the free market. If it were up to them, we would have a centralized economy where the government would run all the businesses and industry in the US.

8. We should not decriminalize marijuana because if we do, the government will decriminalize all illegal drugs. Before you know it, teenagers will be able to buy cocaine, heroine, and LSD at the local convenience store.

9. The reason that we know we know the war on terror is the right thing is because it is working, and we are finding and stopping terrorists more than ever!

10. Secular humanists argue that creationism should not be taught in the public schools because it is based on religious beliefs and not science. But don't humanists believe in science just like Christians believe in the word of God?

I am making a uniqueness or harms argument =

Claim: U.S. economy is doing fine

Supporting fact	Method / research	Relevance to claim
unemployment has bottomed out	data from U.S. dept. of commerce, based on unemployment claims; * underreports ppl who've stopped looking for work	in consumer econ., mass unemployment pushes down demand; unemployment level now not great but mildly improving
interest rates low	from Federal Reserve data	low interest rates makes it easy for businesses to borrow to expand or for homebuyers to get loans

Questions: Is fiscal cliff relevant? Is trade deficit with China relevant?

I am making a link or solvency argument

Claim: CO_2 causes global warming

Contributing factor	Strength, Evidence
traps heat from re-radiating	lab experiments; computer models; historical data < 200 yrs; geological data. Strong data.
feedback effects: melting permafrost releases more CO_2; melting snow causes greater heat absorption	field data; lab experiments; computer models. This is all somewhat speculative.

Restraining factor	Strength, Evidence
methane is worse	lab experiments. Strong data; however, it probably isn't nearly as important as CO_2.
increased plant growth will cause increased use of CO_2	lab experiments. This is very speculative; probably won't do enough to offset rising temps.

Questions: If CO_2 emissions cut to zero today, how much warming would result?

I am making a critique or moral argument >

Claim: murder in self-defense is acceptable in cases of domestic abuse

Key concept / theory	What is included?	What is excluded?	Relevance
intention vs side effect: intent of self-defense is acceptable, and killing other person is only side effect	spontaneous act of self-defense	intentional plan to set up a situation where need to act in self-defense is clearly foreseeable	in most cases, victim is so upset they can't plan, so acts are usually spontaneous
Kant's categorical imperative: only accept rule we can logically will for everyone to follow	spontaneous act of self-defense	pretty much everything else	clear rule to follow, but Kant's rule is inflexible; what would his stance be on lying to the Nazis?

Questions: Would natural law theory help this argument?

I am making a uniqueness or harms argument	=

Claim: _____

Supporting fact	Method / research	Relevance to claim

Questions:

I am making a link or solvency argument

Claim: _____

Contributing factor	Strength, Evidence

Restraining factor	Strength, Evidence

Questions:

I am making a critique or moral argument >

Claim: _____

Key concept / theory	What is included?	What is excluded?	Relevance

Questions: