Laws
of
Logic

Why Study Logic?

- To think correctly.

- So we are not ignorant.

- To glorify God more fully.

Definitions

- **Argument -** *In a philosophical or logical context, where we draw conclusions from various reasons (premises). (Reasons: because, for, as, if, etc.) (Conclusions: therefore, thus, consequently, hence, etc.)*

- **Law of (Non)Contradiction -** *A statement cannot be true and not true at the same time and in the same respect. Otherwise, nothing can be true and nothing can be false – no right and wrong.*
   Example – It cannot be raining and not raining at the same time and in the same respect

Fallacies

- **What are fallacies?**
  - *Faulty arguments*

Two Types of Fallacies:
1) **Formal –** *when the form of the argument is structured incorrectly.*
2) **Informal –** *when the form is correct, but the conclusion does not follow.*

Major Formal Fallacies

- **1) Affirming the Consequent** – *any argument of the form:* *"If P, then Q" "Q, therefore P."*

- *Ex – "If you fail to water the tree, it will die. The tree died, so you must have failed to water it."*

Major Formal Fallacies

- **2) Denying the Antecedent** *– any argument of the form: "If P, then Q"   "Not P, therefore Not Q."*

- ***Ex** – "If you are thinking then you must exist. Rocks don't think, so rocks don't exist."*

Major Formal Fallacies

- 3) **Begging the Question –** *Assuming the conclusion as a premise.*

- *Ex* – *"The Bible can be trusted because God wrote it. The Bible says God exists, so God must exist."*

Major Formal Fallacies

- 4) **False Disjunctive** – *pretends compatible properties are incompatible.*

- *Ex* – *"You can't have a democratic socialism."*

Major Informal Fallacies

- 1) **Equivocation**– *using one word in two different ways.*

- *Ex* – *"This country is a republic, not a true democracy, so we should all vote republican."*

Major Informal Fallacies

- 2) **Amphibole** – *misunderstanding or presenting an ambiguous claim.*

- *Ex* – *"I know half of you half as well as I should like, and like less than half of you half as well as you deserve."*

Major Informal Fallacies

- 3) **Accent**– *the meaning of a sentence is changed by differing emphases, accents, and/or tones of voice.*

- *Ex* – *"WE should not speak ill of the dead.*
    We SHOULD not speak ill of the dead.
    We should not SPEAK ill of the dead.
    We should not speak ill of the DEAD."

Major Informal Fallacies

- 4) **Appeal to Pity**– *an attempt to get out of one's responsibilities by pointing to how hard they are to live up to.*

- ***Ex*** *– "You can't fail me, I'll lose my financial aid."*

Major Informal Fallacies

- 5) **Ad Hominem**– *an argument that focuses upon the arguer, not the argument.*

- *Ex* – *"Wittgenstein was a member of the Nazi party, thus what he has to say about language must be wrong."*

Major Informal Fallacies

- 6) **Appeal to Ignorance**– *justifying X by casting doubt upon Not X (~X).*

- *Ex* – *"I believe that there is life on other planets because no one has been able to prove that there is not."*

Major Informal Fallacies

- **7) Hasty Generalization–** *projecting a regularity based upon too few instances.*

- *Ex* – *"Every monorail I have ever seen has made the nearby streets dismal, so all monorails make for dismal streets."*

Major Informal Fallacies

- 8) **Sweeping Generalization** – *taking a general rule and applying it to all instances, not recognizing that there are exceptions.*

- ***Ex*** – *"Aerobics is the way to go when exercising, and so Jenny should do aerobics."*

Major Informal Fallacies

- 9) **Faulty Dilemma** – *pretends fewer possibilities exist than actually do.*

- *Ex* – *"Either you are for us or you are against us."*

Major Informal Fallacies

- 10) **Loaded Question** – *a question that is not fair to ask.*

- *Ex* – *"So, have you stopped beating your wife yet?"*

Major Informal Fallacies

- 11) **False Cause** – *assuming a causal connection improperly.*

- *Ex* – *"Every time a storm comes the barometer falls. So, the barometer must be causing storms."*

Major Informal Fallacies

- 12) **Straw Man** – *misrepresenting an opponent's view in order to make it appear less plausible than it really is.*

- **Ex** – *"The New Testament says we are not under the Law, so we can violate the Law all we want."*

Major Informal Fallacies

- 13) **Bandwagon Fallacy** – *appealing to the masses.*

- *Ex* – *"Everyone is doing it."*

Major Informal Fallacies

- 14) **Two Wrongs Make a Right** – *suggesting that another's guilt justifies one's actions, or proves innocence.*

- *Ex* – *"Well Hays did it too!"*

Major Informal Fallacies

- 15) **Appeal to Authority** – *the authority cited is not an authority, or there is too much dissent in the field, or the members in the field do not respect the authority.*

- *Ex – "George W. Bush says North Korea is evil, so it must be evil."*

Major Informal Fallacies

- 16) **Appeal to Tradition** – *claiming that something is of value solely because of its age.*

- *Ex* – *"We should not quit minting pennies, because this country has always minted pennies."*

Major Informal Fallacies

- 17) Argument to the Future – *appealing to the future to prove one's case.*

- *Ex* – *"Even though we have no support for evolution in the fossil record, it is still correct because the evidence will someday be found."*