ARGUMENTS

Arguments

arguments

Argument Worksheet

1. An argument is a collection of propositions with one proposition, the conclusion, following from the other propositions, the premises. Inference is a process of arriving at a conclusion by means of other propositions and the relationship they bear to each other.

2. DEDUCTIVE ARGUMENTS: Arguments in which the arguer maintains that the argument is valid. The arguer also hopes that the argument is sound.

3. VALIDITY: An argument is valid if and only if given the truth of its premises, the conclusion must follow. Stated another way, a valid argument is one in which it is impossible for the conclusion to be false and the premises true.

Argument Worksheet

4. Two ways for a deductive argument to go wrong: Either (i) an argument will have false premises, or (ii) the conclusion can fail to follow from true premises.

5. INVALID ARGUMENTS: An invalid argument is one in which the conclusion does not follow from the premises.

6. SOUNDNESS: A sound argument is one in which both the premises are true and the argument is valid.

7. UNSOUND ARGUMENTS: An unsound argument is one in which either at least one of the premises is false or the argument is invalid.

8. All sound arguments are valid. Some valid arguments are unsound. All invalid arguments are unsound. Some unsound arguments are valid.

Argument Worksheet

9. INDUCTIVE ARGUMENTS: Arguments in which the arguer maintains that it is improbable that the conclusion is false given true premises. The premises of inductive arguments are about past instances. The conclusions of inductive arguments make claims about present and future cases based on the past instances stated in the premises. Inductive arguments are not deductively valid. Inductive arguments admit of degrees of strength and weakness.

10. RATIONAL PERSUASIVENESS: An argument is rationally persuasive if (i) a person has more reason to believe the premises are true rather than false; (ii) the premises are relevant to the conclusion; and (iii) the premises provide adequate evidence or grounds for the truth of the conclusion (deductively or inductively) given the truth of the premises. Deductively sound arguments are always rationally persuasive.

Argument (a, b)

(a)

1. All teachers have beards.
2. Schmid is a teacher.
3. Therefore, Schmid has a beard.

valid
unsound

(b)

1. All teachers are younger than 30.
2. Schmid is a teacher.
3. Schmid is younger than 30.

valid
unsound

Argument (c, d)

(c)

1. All humans are mortal.
2. Socrates is human.
3. Therefore, Socrates is mortal.

valid
sound

(d)

1. Abortion is wrong.
2. Thus, abortion is wrong.

valid
sound/unsound?

Argument (e, f)

(e)

1. If Socrates is human, then Socrates is mortal.
2. Socrates is human.
3. Socrates is mortal.

valid
sound

(f)

1. All spiders have ten legs.
2. All ten-legged creatures have wings.
3. All spiders have wings.

valid
unsound

Argument (g, h)

(g)

1. If I owned all the gold in Fort Knox, then I would be wealthy.
2. I do not own all the gold in Fort Knox.
3. Therefore, I am not wealthy.

invalid
(all true premises)

(h)

1. Some philosophy professors are wealthy.
2. Schmid is a philosophy professor.
3. Schmid is wealthy.

invalid

Argument (i, j)

(i)

1. Some humans teach philosophy.
2. Schmid is a human.
3. Schmid teaches philosophy.

invalid
(all true premises)

(j)

1. No one gets an A in philosophy unless he or she works hard.
2. Waldo works hard.
3. Waldo gets an A.

invalid

Argument (k)

(k)

1. If one directly kills an innocent, then one commits murder.
2. Abortion directly kills an innocent.
3. Abortion is murder.
4. Murder is morally impermissible.
5. Therefore, abortion is morally impermissible.

valid
sound/unsound?

Weak and Strong Inductive Arguments

A

1. This herd includes 100 head of cattle.
2. Two randomly selected members of the herd have mad cow disease.
3. Therefore, probably all members of the herd have mad cow disease.

B

1. This herd includes 100 head of cattle.
2. Eighty randomly selected members of the herd have mad cow disease.
3. Therefore, probably all members of the herd have mad cow disease.

CONCLUSION-INDICATORS

therefore	hence	thus
so	accordingly	in consequence
consequently	proves that	as a result
for this reason	for these reasons	it follows that
we may infer	I conclude that	which shows that
which means that	which entails that	which implies that

which allows us to conclude that

which points to the conclusion that

PREMISE-INDICATORS

since	because	for
as	follows from	as shown by
inasmuch as	as indicated by	the reason is that
for the reason that	may be inferred from	in view of the fact that
may be deduced from		may be derived from

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Arguments – General Points

- Arguments are sets of reasons in support of a conclusion.
- The purpose of an argument is to support one's view, to seek the meaning or justification for a position or belief, and to rationally persuade others.

Diagnosing an Argument

1. What is the conclusion?
   - What is the point of the argument?
   - What is the author (or you) trying to prove?
   - The first step in diagnosing an argument is to discover the conclusion, whether your own or the author's.
2. What are the reasons for the conclusion?
   - Why is torturing babies for fun wrong?
   - The second step in diagnosing an argument is to list the reasons for the conclusion.

Presenting an Argument

1. Present your reasons in a "natural order." One idea, reason or thought should follow the other in a fashion that makes sense and flows according to the intentions of the argument.
2. Use strong premises. Weak premises will lead to a weak argument.
3. Be precise. The more direct, the better.
4. Use consistent terms and phrasings throughout the argument.
5. Maintain the same meaning for terms throughout. Define terms early and stick to those meanings.

Types of Argument

- Arguments by Example
- Arguments by Analogy
- Arguments from Authority
- Arguments about Causes
- Deductive Arguments

Definitions

- Use clear and specific terms
- If there are competing definitions for a term, use the clearest case
- Definitions are not arguments--don't use a definition to make an argument
- Clarify, clarify, clarify!

Fallacies

(a very short list)

Ad Hominem

- attacking the person of alleged authority rather than his or her qualifications
- EX: “Anyone who thinks abortion should not be legal are a bunch of chauvanistic pigs who think women should be barefoot in the kitchen.”

Ad Ignorantiam (appeal to ignorance)

- arguing that a claim is true (false) just because it has not been shown to be false (true).
- Basic form:
  - We don't know that statement S is false, or We have no reason to think that S is false. Therefore, S is (probably) true.
  - We don't know that statement S is true, or We have no reason to think that S is true. Therefore, S is (probably) false.
- Both cases appeal to one's ignorance. Then, the argument tries to move from one's ignorance to claims about what is true or false.

Problem with Appeals to Ignorance

- Leads to contradiction
  - I have no reason to think there aren't 30 students in this class. And, I have no reason to think there are 30 students in this class. So, there (probably) both **are** and **are not** 30 students in this class.
- Nothing follows from one's ignorance (except that one is ignorant). You don't get knowledge from ignorance. You just get more ignorance. If ignorance did lead to knowledge, the best way to get smart would be to stay stupid.

Ad Misericordiam (appeal to pity)

- appealing to pity as an argument for special treatment
- EX: “I'm just such a miserable person, you ought to grant me special priviledges.”

Begging the Question

- implicitly using your conclusion as a premise
- EX: God exists because it says so in the Bible, which I know is true because God wrote it, after all!

Complex Question

- posing a question or issue in such a way that a person cannot agree or disagree with you without committing him- or herself to some other claim you wish to promote
- "Will you follow your conscience, instead of your pocketbook, and donate to the cause?"
- Anyone who says "no," regardless of his or real reasons for not donating, is made to feel ignoble; anyone who says "yes," regardless of his or her real reasons for donating, is made to feel noble.

Composition & Division

- assuming that a whole must have the properties of its parts or that the parts must have the properties of the whole
- EX: Since the members of the team are fine athletes, the team must be a fine team. Or, since the team is the best in the league, the members of the team must be the best in the league.

Equivocation

- using a single word in more than one sense
- EX. A cat is an animal. Thus, a large cat is a large animal.
- A plane figure with four equal sides is a square.
- Squares are bores.
- Thus, a plane figure with four equal sides is a bore.

False Dilemma

- reducing the options you consider to just two, often sharply opposed and unfair to the person against whom the dilemma is posed
- "Since the universe could not have been created out of nothingness, it must have been created by an intelligent life-force…"
- Is creation by an intelligent life-force the only other possibility?

Straw Man

- caricaturing an opposing view so that it is easy to refute
- often involves making an argument so simple or stupid that anyone would disagree with it

Appeal to False Authority

- Appeal to some authority or expert to support one's position when one has no expertise in what is being claimed
  - Form of arguments from authority
    - Dr. Authority thinks or says that X is true. Therefore, X is true.
    - The assumption is that Dr. A would not say X is true unless X really is true.
  - But, what makes for a good authority?

Authority Checklist

1. The authority really made the claim being attributed to him/her
2. The authority's claim is in an objective realm of discourse (chemistry and not astrology)
3. The authority really is an expert on that subject
4. Other authorities in the field generally agree with the expert's claims or methods
5. The authority is a reliable person when reporting on the particular subject matter

Ad Populum

- appealing to the emotions of a crowd. Also, appealing to a person to "go along" with the crowd.
- EX: "Everyone’ s doing it!"
- Ad populum is a good example of a bad argument from authority: no reasons are offered to show that "everybody" is an informed or impartial source