



Critical Reasoning for Beginners: six

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Recap on last week:

we looked at what makes a deductive argument SOUND

and at

what makes such an argument VALID

Is the argument sound?

	True premises	False premises
Valid		
Invalid		

**A deductive argument is sound just
in case....**

...all its premises are true...

...and it is valid

Could the argument be valid?

	True conclusion	False conclusion
True premises		
False Premises		

An argument is valid...

... if and only if there is no possible situation...

... in which all its premises are true and its conclusion false

An argument is valid if and only if....

...its counterexample set is inconsistent....

...i.e. the set consisting of the premises plus the negation of the conclusion ...

...cannot be true together.

**This week we shall be looking at
common fallacies**

A FALLACY...

**.... is an argument that looks like a
good argument...**

...but which is not a good argument

...you won't *believe* how many there are!

**If it is snowing the
mail will be late**

It is snowing

**Therefore the mail will
be late**

This is an example of the valid
argument form of modus
ponens

**If it is snowing the
mail will be late**

The mail will be late

**Therefore it is
snowing**

This is an example of the
fallacy of affirming the
consequent

**The fallacy we have just looked at is a
formal fallacy...**

....a fallacy of form...

**...but we are going to look at fallacies
informally**

In particular we are going to look at fallacies of:

➤ **relevance**

➤ **vacuity**

➤ **clarity**

Fallacies of relevance:

- **citing in support of a conclusion something that is true but irrelevant (*non-sequitur*)**
- **attacking the person making the argument rather than the argument that is made (*ad hominem*)**

Non-Sequitur:

**Bill lives in a large building,
therefore his apartment is large.**

**Every year many people are
supported through life by their
religious beliefs, so their religious
beliefs must be true.**

These arguments work because people don't notice the irrelevance, and because they are overly:

- a) generous (they are reluctant to point out the irrelevance);**
- b) proud (they don't want to admit they can't see a connection)**

Ad Hominem:

Nick Griffin is leader of the BNP therefore his claim that some people worry about immigration is rubbish.

Von Daniken's books about ancient astronauts are worthless because he is a convicted forger and embezzler.

Be careful to distinguish:

- **ad hominem attacks: attacks on someone's right to say something**
- **ad hominem fallacies: attacks on the truth of what someone says**

An ad hominem attack:

Nick Griffin is a self-professed racist, so you should take care when listening to his claims about immigration.

An ad hominem fallacy:

Nick Griffin is leader of the BNP therefore his claim that some people worry about immigration is rubbish.

Fallacies of vacuity:

- **citing in support of a conclusion that very conclusion (*circular arguments*)**
- **citing in support of a conclusion a premise that assumes the conclusion (*question-begging*)**
- **offering an argument that cannot be questioned (*self-sealing*)**

In a circular argument the conclusion IS one of the premises

In a question-begging argument the conclusion is ASSUMED by one of the premises.

Circular argument:

**All whales are mammals, therefore
all whales are mammals**

Question: is this valid?

All circular arguments are valid...

.... because there can't be any possible situation in which the premises are all true...

.... and the conclusion false...

... if the conclusion is one of the premises.

Circular arguments often convince

....

...because there will be many premises other than the premise that is the conclusion...

...so the fact that the conclusion is amongst the premises can go unnoticed

Begging the question:

It is always wrong to murder human beings

Capital punishment involves murdering human beings

Capital punishment is wrong

Explain the circles or the question-begging premises in each of the following arguments:

- Intoxicating beverages should be banned because they make people drunk**
- We have to accept change because without change there is no progress**
- The voting age should be lowered to 16 because 16 year olds are mature enough to vote**

Self-sealing arguments:

Two weeks from today at 2.45 you are going to be doing *exactly* what you are doing.

We must respect all moral beliefs, therefore moral relativism is true.

The global economy is controlled by Jews (and any appearance to the contrary is the result of Jewish cleverness)

Some self-sealing arguments move back and forth from:

....interesting but false claims: *all human beings are selfish...*

....to true but vacuous claims: *all human actions are prompted by human desires*

Three ways an argument can be self-sealing:

- i. it can invent ad hoc ways to dismiss criticism (if my prediction didn't work it is because there were negative vibes in the room)**
- ii. it can attack its critics as unable to see the benefits of the position (you have been taken in by those clever Jews)**
- iii. it can re-define key words (it is selfish to always be doing just what you want to do)**

Fallacies of clarity:

- **vagueness (*fallacy of the heap*)**
- **misusing borderline cases (*slippery slopes*)**
- **trading on ambiguity (*equivocation*)**

The fallacy of the heap:

If you have only one penny you are not rich

If you are not rich and I give you a penny then you still won't be rich

It doesn't matter how many pennies I give you you won't be rich

The heap fallacy trades on the fact that many words are vague...

...because they admit of borderline cases....

...tall, fat, clever.....

....and the idea that a series of insignificant differences...

.... can't result in a significant difference

Identify a way of reducing the vagueness of these premises:

i. John has a nice income

ii. Cocaine is a dangerous drug

iii. Mary is a clever woman

iv. Jane is a terrific tennis player

The slippery slope fallacy:

**Humans are rational because they
act for reasons**

**Radiators turn themselves on when
it is cold**

Radiators are rational

The slippery slope fallacy depends on the idea that we should not...

...distinguish between things that are not significantly different...

....and the belief that if A is not significantly different from B...

... and B is not significantly different from C...

... then A is not significantly different from C

Fallacies of ambiguity:

Mary had a little lamb; he followed her to school

Mary had a little lamb; then she had a little broccoli

Equivocation:

A feather is light

What is light cannot be dark



Therefore, a feather cannot be dark

Three types of ambiguity:

(i) Lexical (*I thought it was rum*)

(ii) Structural (*Bert was a fat stock breeder*)

(iii) Cross reference (*my wife's cousin is engaged to her former husband*)

Explain the ambiguities in the following sentences:

- 1. No-one likes Oxford and Cambridge students**
- 2. Every nice girl loves a sailor**
- 3. Our shoes are guaranteed to give you a fit**
- 4. Irritating children should be banned**
- 5. Why do swallows fly south for winter?**

That's it folks!

**Except I thought I'd say where you
might go next if you've become
interested in philosophy**

Weekend schools 2009/10 at Rewley House:

- War, Torture and Terrorism: are they ever justified;**
- The Philosophy of Jean-Paul Sartre**
- Wittgenstein's Philosophy of Mind**
- Evolution and Morality**
- St. Thomas Aquinas**
- Dawkins's God Delusion: A Debate**
- The Philosophy of Hilary Putnam**

Weekly classes at Rewley House or Ewert House:

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The Early Wittgenstein

Classic books: Berkeley's Three Dialogues, Kant's Groundwork of the Metaphysic of Morals, Aristotle's Nichomachean Ethics, Hume's Enquiry

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That really is it....good luck!