

## Arguments--the basics

### What is an argument?

There is argument, the activity, and argument, the product: what you try to produce when you are arguing. The product is a list of sentences of which the last, the conclusion, is supposed to be supported by the others, the premises. So:

(1) No professors are ignorant.  
All ignorant people are vain.  
No professors are vain.

and:

(2) All lions are fierce.  
Some lions do not drink coffee.  
Some creatures that drink coffee are not fierce.

are both arguments. (These two examples are taken from Lewis Carroll, who was an amateur logician, as well as the author of Alice in Wonderland.) The readings will not often contain arguments in this nice form. Rather, you will have to extract premises and conclusions from much more complex and lengthy passages of text. In doing this, it is helpful to look out for certain key words which often serve as indicators of ("flags" for) premises or conclusions.

Some common premise-indicators are because, since, given that, inasmuch as, or. These words usually come right before a premise. Examples of the use of such "flags" for premises:

- (3) Keyes should be the next President, for he will put prayer in the public schools.
- (4) Given that euthanasia is a common medical practice, we might as well make it legal.
- (5) Because McCain is the only senator who speaks candidly with reporters, the press is in love with him.
- (6) We must engage in affirmative action, because America is still a racist society.
- (7) Since abortion is a contested issue in this country, nobody should force his/her opinion about it on anyone else.

Some common conclusion-indicators are thus, therefore, hence, it follows that, so, consequently. These words usually come right before the conclusion of the argument. Examples of the use of such "flags" for conclusions:

(8) Either Bush knows about foreign policy, or he knows how to pretend he does, or he knows how to change the subject; so he knows something.

(9) Affirmative action violates the rights of white males to a fair shake; hence it is unjust.

(10) It is always wrong to kill a human being, and a fetus is undoubtedly a human being. It follows that abortion is always wrong.

(11) William Rehnquist is a jurist of impeccable credentials. Consequently, his decision on the Florida matter was sound.

(12) Hilary Clinton is a carpet-bagger with no roots in New York. Therefore, she can't be a good senator.

It is also helpful to use these premise- and conclusion-indicators in your own writing, to make the structure of your arguments clearer. Don't use them lightly, however: make sure they really are "flagging" either a premise or a conclusion of your argument, as appropriate. Anyone reading your paper is entitled to think that sentences preceded by because, etc., are premises, and that sentences preceded by therefore, etc., are conclusions. Make sure they are, or you are misleading the reader.

### Evaluating arguments

(1) A conclusion is entailed by some premises just in case it is not possible for all the premises to be true and the conclusion false. Put another way, the conclusion follows from the premises just in case, necessarily, if the premises are all true, the conclusion is true.

(2) An argument is valid just in case its conclusion is entailed by its premises. (An argument that is not valid is invalid.)

Note that there are perfect good arguments (in the sense that believing that the premises are true gives you good reason to believe that the conclusion is true) that are nonetheless invalid. For example:

(3) Past Congresses have always contained thieves.  
The current Congress contains thieves.

However, the arguments that we will encounter in this course will be any good only if they are valid. So, the first thing you should ask yourself in evaluating an argument from the readings--or one of your own--is whether it is valid. Is it possible for the conclusion to be false and the premises true? Exercise: determine, for arguments (1) and (2), and for each of the following arguments, whether it is valid or invalid. If invalid, explain why.

(4) Clinton's troubles were caused either by a vast right-wing conspiracy, or by his own mistakes.

They were caused by his own mistakes.  
There was no right-wing conspiracy.

(5) If George W can speak Spanish, I'm the Queen of England.  
George W can speak Spanish.  
I'm the Queen of England

(6) All politicians enjoy manipulating people  
Male politicians enjoy manipulating people.

(7) Abortion is morally wrong.  
Abortion is not a constitutional right.  
Abortion ought to be against the law.

Sometimes an argument which is invalid as written can easily be "fixed up" so that it is valid and in line with what the proponent of the argument intended. The most common reason for this kind of "correctable" invalidity is missing premises. Sometimes a writer does not state all of his or her premises explicitly, and this renders his or her argument invalid. In such cases we can make the argument valid by supplying an appropriate premise, supposing that the writer intended it to be a premise all along. You should become adept at filling in missing premises so that you can see the structure of an argument more clearly. Exercise: supply the missing premises to arguments (6) and (7) above, and to the following arguments:

(8) If you keep up the negative attacks, you'll lose your reputation as a Washington outsider.  
You won't win the race for the nomination.

(9) Abortion involves terminating the existence of some organic matter.  
Abortion is always morally wrong.

Note that sometimes a premise is left out because it is taken to be obvious, as in argument (6) above. However, sometimes the missing premise is contentious, as in (7) above. Sometimes, in fact, it is the most contentious premise of the argument, as in (9) above.

(10) A deductive argument is sound just in case it is valid and all its premises are true.  
(An argument that is not sound is unsound.)

Argument (5) above is an example of a valid argument which is unsound.

Note the following fact, which is a consequence of the definitions of soundness and validity:

(11) The conclusion of a sound argument is true.

This has practical import. If you read someone's article and disagree with the conclusion, the onus is on you to show why the argument given is unsound. For (by (11)) if it were sound, the conclusion would be true. Therefore, if (according to you) the conclusion is false, the argument must be unsound. This means that either the conclusion does not actually follow from the premises--in other words, there is a problem with the author's reasoning or logic--or at least one of the premises is false. In this subject, it is never enough simply to say that you disagree with someone's position, or that his or her position is wrong. If it is wrong, there must be something wrong with the argument, and you need to say what it is.

Soundness is the most important criterion in evaluating both arguments from the readings and your own arguments. After having identified the conclusion for which a writer is arguing, and the premises which he or she advances in support of that conclusion, you should attempt to determine whether the argument, thus reconstructed, is sound. And in making arguments of your own, you should always try to give a valid argument the premises of which are true, or at least defensible.

#### Argument-forms and common flaws

Here are some examples of valid forms of argument.

Modus ponens. The general form of a modus ponens argument is given in (1). Two examples follow.

(2) If P then Q.

P

Q

(2) If you videotape Gilligan's Island reruns, then you are in big trouble.

You videotape Gilligan's Island reruns.

You are in big trouble.

(3) If affirmative action is an effective way of achieving greater equality, then it ought to be practiced.

Affirmative action is an effective way of achieving greater equality.

Affirmative action ought to be practiced.

Modus tollens. The general form of a modus tollens argument is given in (4). Two examples follow.

(4) If P then Q.

Not-Q.

Not-P.

(5) If Rumsfeld doesn't calm down, every new car will be outfitted with anti-missile technology.

Not every new car will be outfitted with anti-missile technology.  
Rumsfeld will calm down.

(6) If abortion in the ninth month of pregnancy is acceptable, then infanticide is acceptable.  
Infanticide is not acceptable.  
Abortion in the ninth month of pregnancy is not acceptable.

Disjunctive syllogism. The general form of a disjunctive syllogism is given in (7). Two examples follow.

(7) (Either) P or Q. (Either) P or Q.  
Not-P. Not-Q.  
Q. P.

(8) Either Hillary exaggerated, or there was a vast right-wing conspiracy.  
Hillary did not exaggerate.  
There was a vast right-wing conspiracy.

(9) Either Edwards or Bush will be the next President.  
Bush will not be the President.  
Edwards will be the President.

Categorical syllogism. Two general types of categorical syllogism are given in (10). Two examples follow.

(10) All Fs are G. All Fs are G.  
x is (an) F. All Gs are H.  
x is G. All Fs are H.

(11) Every close election comes down to Florida.  
The last election was close.  
The last election came down to Florida.

(12) Abortion involves terminating the existence of organic matter.  
It is always morally wrong to terminate the existence of organic matter.  
Abortion is always morally wrong.

Here are some things which make an argument bad. The fallacy of equivocation: using key terms in different senses in different parts of the argument.

Evolution is a theory.  
A theory is a conjecture which remains to be established.  
Evolution is a conjecture which remains to be established.

Begging the question (also known as a circular argument): assuming what you are trying to prove.

Gore won the election.  
There can only be one winner; the rest are losers.  
Bush lost the election.

You won't find obvious cases of begging the question in the readings. What you may see is a weak form of begging the question, namely putting forward as a premise something so close to the conclusion that no one would believe the premise who didn't already believe the conclusion. An ineffective mode of argument, precisely because it does not persuade.

The Bush presidency is illegitimate.  
An illegitimate president has no right to govern.  
Bush has no right to govern.

Proving too much: an argument is said to prove too much if it appeals to a principle which has consequences that the formulator of the argument would not accept, or which are clearly erroneous.

No one guilty of indiscretions should be President.  
Bush's drunk driving was an indiscretion.  
Bush shouldn't be President.

Ad hominem arguments: an ad hominem argument involves a personal attack on one's opponent rather than a reasoned objection to his or her position or argument.

Linda Chavez says affirmative action hurts those it is meant to help.  
If you want to know what's hurting the people affirmative action is meant to help, it's blowhards like Linda Chavez.  
Affirmative action helps those it is meant to help.

Appeals to authority: arguments that try to support a position simply by pointing out that someone or other holds it.

There has never -- ever! -- been a finer public servant in West Texas than Lurleen Bush.  
Lurleen says that migrant workers have nothing to complain about.  
Migrant workers have nothing to complain about.

In philosophy, especially, there are no authorities. It is never acceptable to support a position simply by pointing out that someone we've read holds it. You can explain why you think Popper's arguments for that position are persuasive, but a mere statement that Karl Popper is a great man whose shoes we should be so lucky as to be asked to shine carries no argumentative weight. Appealing to supposed authorities in this way is the mirror image of an ad hominem argument.

Straw person ("man") arguments: representing your opponent's position or argument unfairly so that it is easier to shoot down.

Naderites think you should sue God for damages if you get caught in a rainstorm.

You'd have to be insane to sue God.

Naderites think you should do something insane.

In such cases, all you have shot down is a "straw man," not your actual opponent.