Critical thinking I:  
More About Argument  

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MRes Philosophy of Knowledge  
(slides available http://cfpm.org/mres)
(Potted) History of the “Western Liberal” Tradition of Thought

• Start usually attributed to culture of Ancient Greeks from around 600 BCE
• Taken up by Romans (some aspects)
• After Roman empire collapsed, was maintained/developed in the Islamic World
• Later re-imported to Western Europe
• At different times nurtured in different European Countries
• Now in many countries across the world
The Original Greek Context

• Small, independent but affluent “city states”
• Where the citizens discussed court cases, and some decisions collectively
• (the “citizens” did not include women, slaves, outsiders or children)
• Thus rhetoric and argument were important
• This was a social process
• The outcomes of these discussions were important – they had real consequences
(formal account of the)  
**Structure of an argument**  
(according to these philosophers)

• You start with a number of statements which are agreed with – the *premises*

• Repeatedly you:  
  – Make a statement that is a consequence of already established statements (which are the premises *plus* the previously established statements using this step) – the *argument steps*

• Until you get to the statement you wanted – the *conclusion*
the Structure of an Argument

Premises

Argument Steps

Conclusion

Implicit Assumptions
Exercise 1: identifying parts of arguments (again but it's hard)

- In groups of two or three…
- Choose some of the example arguments on the sheet, and see if you can identify:
  1. The Conclusion
  2. Any premises (the starting points)
  3. The Intermediate argumentative steps (if any)
  4. Any unmentioned (implicit/hidden) assumptions
Limitations on acceptable argument

• Some philosophers (and others) sought to establish norms as to what kinds of argument were not acceptable
• And thus improve the decision making (by avoiding arriving at bad conclusions)
  E.g. Don’t believe Jim – he’s a pervert!
• These kinds of bad argument later came to be called fallacies
• They can be seen as the weakest, negative constraint upon discussion
Exercise 2: Judging arguments

• In groups of two or three
• Look at some of the arguments on the sheet, and decide for each:
  1. If you think it has good or bad argument steps
  2. Whether you agree with its conclusion
  3. Whether you agree with its assumptions

Remember because the assumptions could be wrong it could have:
  – good argument steps with a bad conclusion
  – bad argument steps with a good conclusion
Kinds of Bad Argument?

• starting with bad premises
• sequence meaning cause
• reverse logic
• appeal to authority/experience
• majorities are right
• over generalising
• stereotyping – using people’s biases
• failure to mention the full picture
• arguing from non-existence
• circular arguing
• pure emotion
Making an Argument more Rigorous

• Making your assumptions explicit (bringing as many of the implicit assumptions as explicit premises as possible)

• Making your argument steps clear – why does the step follow from its premises

• Being honest about the strength of your supporting evidence and authorities

• Trying to keep different arguments separate

• (Generally) avoiding circular arguments
The adversarial approach

• The best person to find flaws, limitations etc. in an argument is someone arguing for the opposite point of view (counter-argument)
• Answering criticisms concerning one’s argument made may lead one to improve one’s argument
• Another approach is to criticise the counter-argument, undercutting the criticism
• You may find eventual agreement is possible (e.g. in a synthesis) or not
• The presence of adversarial argument may lead to a better formulation of knowledge
Common attacking criticisms of arguments

• Giving a counter-example to the argument (an example where the assumptions are true but the conclusion is false)
• Argue that the assumptions do not apply to the case being argued about (relevance of assumptions)
• Argue that the conclusion is not relevant to the case being argued about (relevance of conclusion)
• Show that consequences of the conclusion would lead to further consequences that were themselves false (ridiculo ad absurdum)
Exercise 3: attacking some arguments

- In groups of two or three
- Look at some of the arguments on the sheet that you disagree with the steps of
- Try to formulate some counter-arguments
- Decide whether your counter-arguments fall into the common categories just described, namely:
  - Counter-example
  - Relevance of assumptions
  - Relevance of conclusion
  - Ridiculo ad absurdum
Internalising the adversarial process

• Once you are used to the adversarial approach it can be internalised, that is
• You imagine yourself as your own opponent and so thing what counter-arguments could be made against your own arguments
• And thus improve one’s original arguments (or even change one’s mind about them)
• And hence make them more robust against possible criticism by anticipating criticisms
Exercise 4: attacking arguments you agree with

• In groups of two or three
• Look at some of the arguments on the sheet that you agree with (or invent them if necessary) and
• Try to formulate some counter-arguments against it
• Are there any unmentioned but necessary assumptions in it?
Exercise 4: attacking arguments you agree with

• In groups of two or three
• Look at some of the arguments on the sheet that you agree with and
• Try to formulate some counter-arguments
Exercise 5: arguing with someone

- In pairs
- Choose one of the arguments on the sheet
- One person argues for the chosen argument
- The other argues against it
- Take it in turns to argue for your chosen position and against the position of the other person
- Stop if
  - it becomes too heated (are you talking about the arguments or the conclusions?)
  - It does not seem to be getting anywhere
- Then try this with another example
Conclusion

• It is a necessary part of becoming a PhD student that you learn to judge whether arguments are good or bad (even if made by your supervisor)
• The Goodness of an argument is separate from whether one agrees with its conclusion
• If you disagree with a conclusion you have to decide whether it is the argument steps or the premises you disagree with
• Adversarial (but polite!) argument is the cornerstone of the western liberal academic tradition (also its political and legal traditions)
• Getting good at arguing involves internalising the process and doing a lot of self-criticism/argument
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