



Training Exercises PT3 (Defeasible Arguments)

Issue 1: *Starter*

Answer the following questions:

- (a) What is the difference between defeasible and deductive reasoning?
- (b) In which contexts do you think that defeasible arguments have the upper hand over deductive arguments?
- (c) What could be a reason that we nevertheless aim at deductively valid arguments in this lecture instead of any other form of arguments?

Issue 2: *Conversion from Defeasible to Deductive Arguments*

You can always transform a non-deductive into a deductive argument. For this, you will often need to modify the conclusion, change the structure and add premises. Think of ways to convert

- (a) inductive into deductive arguments.
- (b) abductive into deductive arguments.
- (c) analogies into deductive arguments.
- (d) general defeasible arguments into deductive arguments.

Hint: It might be helpful to write down a general form of each of the forms of arguments first.

Issue 3: *Analogies*

In video you saw the following analogies from a newspaper article by Patrick Lin¹

“...robots aren’t merely replacing human drivers, just as human drivers in the first automobiles weren’t simply replacing horses: The impact of automating transportation will change society in radical ways, and ethics can help guide it.”

¹“The Ethics of Autonomomous Cars”, 2013, The Atlantic, <http://www.theatlantic.com/technology/archive/2013/10/the-ethics-of-autonomous-cars/280360/>

What is flawed with this analogy?

Issue 4: *Reconstruction*

(This issue is a modification of an exercise in *Bowell/Kemp (2015)*.)

Reconstruct the following commentary from a sports report once as three separate arguments and once as one argument. Explain which way is more forceful and why.

The athlete is probably not going to win another Olympic medal in the long distance. He is now older than any previous winner of a medal. He hasn't got any racing experience this year, and his training has been inadequate lately because of a knee injury.

Issue 5: *The Mercedes*

In the video you saw the following argument unfolding:

Argument: The Mercedes

- P1: My neighbour told me that he just bought a new Mercedes.
- P2: There is a brand-new Mercedes in front of his house.
- P3: His sister, who is usually a very reliable source of information, says that he just brags about it everywhere, but that he did not actually buy a new car and that he could not afford it.
- P4: His wife, who has no incentive of lying, says that his sister is always jealous and often tells lies about the family.

C: The Mercedes in front of my neighbour's house is his.

- (a) Add a premise P5 that defeats the conclusion and instead leads to the conclusion that the Mercedes is not my neighbour's.
- (b) Add a premise P6 that defeats the last conclusion and instead leads to the conclusion that the Mercedes is indeed my neighbour's.
- (c) Add a premise P7 that defeats the last conclusion yet again and instead leads to the conclusion that the Mercedes is not my neighbour's.

Make sure that, in each step, none of the previous premises is contradicted!

Issue 6: *More deductive arguments*

Write more valid arguments! If you did not yet finish the exercise sheet on deductive arguments, complete this. Then try to come up with at least three arguments you believe to be sound and informative.

You can argue for or against anything from our list of inspiration or suitable conditionalizations thereof, or you can think of a conclusion yourself. Discuss at least one of your arguments in your group and check at least one argument from one of your group members for validity.

List of inspirations:

- (a) We should all wear masks during the Covid-19 pandemic.
- (b) The fragmentation of the streaming market is bad for the consumer.
- (c) Children should learn a musical instrument when they are young.
- (d) Pens with blue ink are better than pens with black ink.
- (e) Vim is better than Emacs.
- (f) Both Emacs and Vim are highly impractical.
- (g) Most Apple products are overpriced.
- (h) It is morally wrong to eat meat from intensive farming.
- (i) Esports is sports.
- (j) It is rational to maintain a regular sleep cycle.
- (k) Arriving at informative and sound arguments is hard.

Issue 7: *Bonus: Even more deductive arguments*

Think of something that you very firmly believe in and try to come up with a sound argument that argues for that. Depending on what you pick, it sometimes can be very hard to come up with a sound and informative argument for that.