



## Training Exercises PT5 (Discourse)

### with Example Solutions

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#### Issue 1: *Discussion*

Get together in your discussion group.

- (I) Installing CCTV in all public transport is morally permitted.
- (II) Health insurances should be allowed to use the data from fitness trackers to adjust the insurance fees of their insurees.
- (III) Eating meat when you can healthily survive without meat is morally forbidden.
- (IV) Internet access should be free to everybody.

For each of the above claims, proceed as follows:

- (a) For each of the above statements, select two people from the group who are going to discuss the statement.
- (b) Decide who of you will argue for and who argues against the claim. (If you both have the same opinion about the statement, one of you is going to pretend to have a different opinion.)
- (c) Each of you writes a tabular argument for the position that was assigned to you.
- (d) Exchange your arguments and try to engage in a discussion that follows the protocol from the slides. Try to do at least three iterations for each argument. (It might get a bit ridiculous but that's fine.)

#### Issue 2: *But Why?*

You saw different methods to show that an argument is not suitable to support its conclusion. But *why* do they work? *Why* do they actually show that the argument in question is not suitable to support its conclusion? Answer this question for

- (1) the method of showing that there is at least one false premise
- (2) the method of showing that the argument's inference does not work
  - (i) for deductive arguments
  - (ii) for defeasible arguments
- (3) the method of showing that there is a defeater

*Hint:* Recall what arguments are there for and which properties of arguments are important.

### Sketch of a Solution 2:

The purpose of arguments basically is that the entirety of the premises should give reason to believe in the conclusion. If you can successfully apply any of the methods, then you showed that the argument fails to do so.

(1) **the method of showing that there is at least one false premise**

If you show one of the premises to be false, then it cannot give reason anymore to show anything – because it is false.

(2) **the method of showing that the argument's inference does not work**

(i) *for deductive arguments*

If you can show that the argument is *not valid*, you show that you actually cannot infer the conclusion from the premises. But the whole point of a deductive argument is that you can infer the conclusion from the premises. The argument could then still be 'degraded' to a defeasible argument. But taken as a deductive argument, it does not give you reason anymore to believe in the conclusion, because even if all premises were true, the conclusion does not follow.

(ii) *for defeasible arguments*

If you can show that the argument is *not defeasibly forceful*, then you show that the conclusion is not sufficiently probable given the premises. In this case, the conclusion has a too high likelihood of being false, even if all premises hold. So, the premises are not reason to believe in the conclusion.

(3) **the method of showing that there is a defeater**

Usually, the conclusion of a defeasibly forceful argument has a high likelihood to being true if all its premises are true. But if there is a defeater, all premises can be true, while the conclusion is most certainly false. In this case, the premises are not good reason to believe in the conclusion.

### Issue 3: *Completing the Example from the Video*

On slide 10, you saw the following argument:

**Argument:**

- |       |   |
|-------|---|
| P1:   | If the system is completely obscure to an attacker, then an attacker cannot know how to attack.                                     |
| P2:   | If attackers cannot know how to attack, then the system is secure.  |
| P3:   | If a system that is designed to be obscure is secure, then Security through Obscurity is sufficient for securing a critical system. |
| <hr/> |   |
| C:    | Therefore, Security through Obscurity is sufficient for securing a critical system.   |

This argument was tried to be attacked by:

### Argument:

P1': The argument's premises can be true, while the conclusion can be false.

P2': If P1, then C.

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C': The argument is not valid.

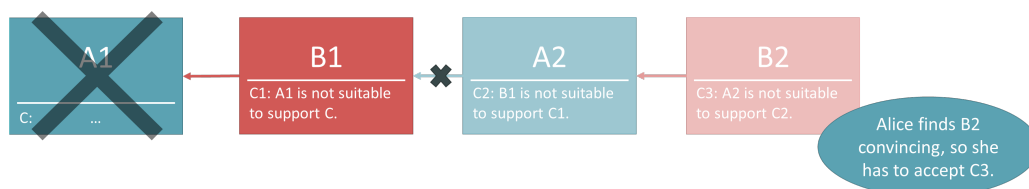
Give more reason to believe in P1'.

### Sketch of a Solution 3:

You already learned how to show that arguments are not valid, and this is not hard to show: P3 is true, if it actually was the case that each system that is designed to be obscure is indeed secure, then Security through Obscurity would be a perfect security mechanism. But nowhere in the argument can we conclude that each system that is *designed* to be obscure is indeed secure. So, from the argument we have no way of inferring the antecedent<sup>1</sup> in P3. The issue here is that we miss the link between a system being designed to be obscure and actually being and remaining obscure over time. An easy counterexample would be if there was an attacker who guessed some of the system specifics of a system that was designed to be obscure right and made an attack vector out of that. In this case, all premises are true, but the conclusion is false: P1 still holds because as long as the system was secure, the attacker could not attack, but once they guessed a vulnerability, it was no longer completely obscure to them, because by guessing right, they learned something about the system. P2 is still untouched, as a system really is secure as long as no body knows how to attack it – but the antecedent of P2 just is false now. P3 is true, but has a false antecedent, too. If it were the case that systems that are designed to be obscure actually are secure, then Security through Obscurity would actually suffice – but it is not the case that systems that are designed to be obscure actually are secure. The conclusion is false, because in our counter example the security of the system was breached even though it used Security through Obscurity.

### Issue 4: Looooonger Discussions

You saw how a discussion can resume if one is persuaded by one of the arguments of their dicussion partner. Recall the second possibilites you saw where Alice could not come up with an alternative argument:



This is a minimal working example where the chain of discussion was just long enough such that we could show you what might happen. Draw this picture such that Alice does not agree with Bob's second attack (B2), but only with his fourth (B4). Assume that we keep with possibility 2, i.e. that she cannot find an alternative to A4 and has to accept B3. How does the picture change and how could

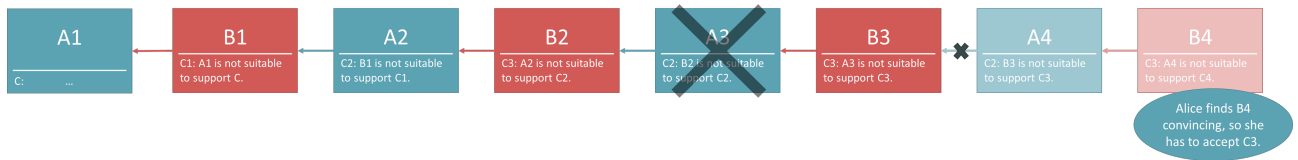
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<sup>1</sup>The first part of an if-statement is called "antecedent".

the discussion go on then?

#### Sketch of a Solution 4:

The picture will then look as follows:



Alice now has to accept B3 and from there, the process starts all over again. So, even if Alice cannot find an Alternative to A4, she can still try to find an alternative to A3. She does not have to touch her initial conclusion  $C$  until she worked her way all the way back to the start and finally had to accept B1.

#### Issue 5: *Credence Loss*

What could happen in a discussion that could make someone lower their credence in a belief? Can the bare-bones protocol capture this? Why or why not?

*Hint:* There is more than one way in which it can come about that someone lowers their credence as the result of a discussion.

#### Sketch of a Solution 5:

We have a few ways in which Alice could lower her credence in her believe  $c$  in reaction to an argument of Bob.

- Bob could give an argument  $a$  that has a conditionalized conclusion of the form “If  $x$ , then  $\neg c$ ”. If Alice is persuaded by  $a$  and has a moderately high credence in  $x$ , then she could react by lowering her credence in  $c$  appropriately. The bare-bones protocol cannot account for this, because it does not give Bob the opportunity to come forward with an argument that has such a conclusion. In reality, this could happen, e.g., when Bob accompanies his attack of Alice’s first argument with an argument for his own view.
- Assume that Bob gives a defeasible argument for  $\neg c$ . If Alice thinks that there is at least some correlation between the premises and the believes in the premises, then she can react by lowering her credence in  $c$  accordingly. The bare-bones protocol cannot account for this, because it does not give Bob the opportunity to come forward with an argument that has such a conclusion. In reality, this could happen, e.g., when Bob accompanies his attack of Alice’s first argument with an argument for his own view.
- Bob could give an attack  $a$  of Alice’s argument and Alice is not sure about one of the premises. More precisely: she believes in the inference of  $a$  and in all the premises but one, namely premise  $P$ . She has a moderate credence in  $P$ . So, she has to translate this credence to the attack  $a$  and

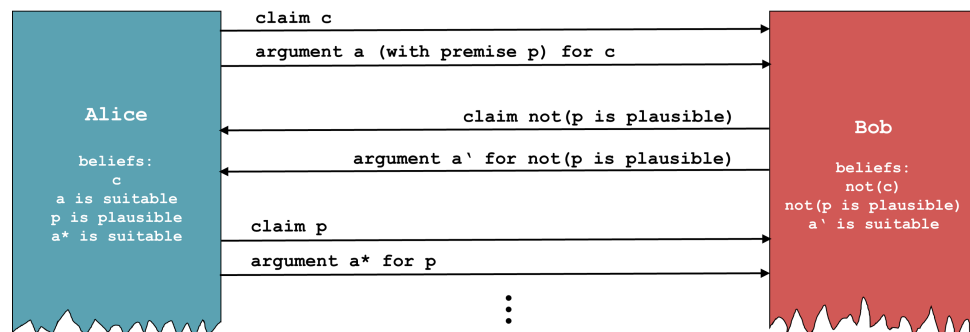
may react by lowering her credence in what is attacked by  $a$  and so on. Then the situation is basically the same as with a conditionalized conclusion, and Alice could react by appropriately lowering her credence in  $c$ . The bare-bones protocol could even accommodate for this.

### Issue 6: *Shifting the Burden of Proof*

You saw that arguing that a premise is implausible shifts the burden of proof. Draw a protocol of a discussion in which Bob shifts the burden of proof back to Alice and Alice answers to this shift.

#### Sketch of a Solution 6:

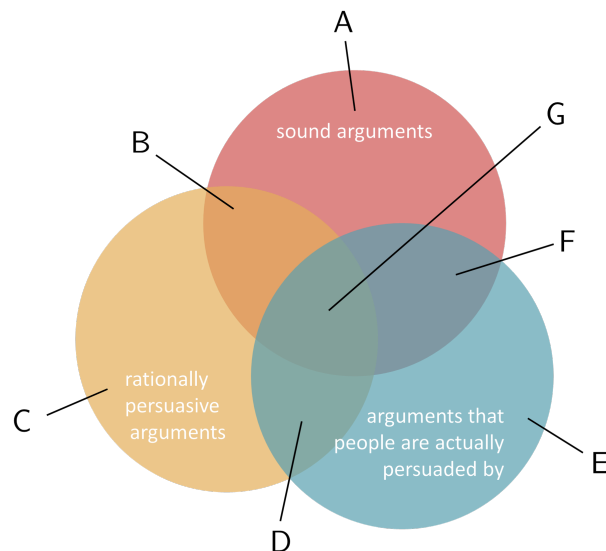
A protocol could look like this:



What is not reflected here, but is important to note is that  $a^*$  should not be just any argument for  $p$ , but an argument for  $p$  that addresses the concerns raised in  $a'$ . Otherwise, Alice does not properly meet to her burden of proof.

### Issue 7: *Venn Life*

In the video you saw the following Venn diagramm:



Think of examples for each position (A–G) in the Venn diagramm.

### Sketch of a Solution 7:

- (A) **an argument that is sound, but neither rationally persuasive nor actually persuasive to a certain audience**

Assume that you have no evidence whatsoever that you will be gifted a billion euros tomorrow, but that, nevertheless, you will miraculously be gifted a billion euros tomorrow. The target audience is you.

#### Argument: A

P1: If you will be gifted 1 billion euros tomorrow, you do not have to go to work today.

P2: You will be giftes 1 billion euros tomorrow.

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C: You do not have to go to work today.

- (B) **an argument that is both sound and rationally persuasive, but not actually persuasive to a certain audience**

Take a certain group of conspiracy theorists as the target audience.

#### Argument: B

P1: If Pizzagate is entirely fictitious and just a fabrication of some alt-right, then Pizzagate was not a reason to not vote for Clinton in 2016.

P2: Pizzagate is entirely fictitious and just a fabrication of some alt-right.

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C: Pizzagate was not a reason to not vote for Clinton in 2016.

- (C) **an argument that is rationally persuasive, but not sound nor actually persuasive to a certain audience**

Suppose that the people who claim that vaccines cause autism were right (which they aren't!) and that the target audience is the general, vaccinating public:

**Argument: C**

P1: If vaccines do not cause autism and this is proven well, then you do not need to worry about your child getting autism because of a vaccine.

P2: Vaccines do not cause autism and this is proven well.

---

C: You do not need to worry about your child getting autism because of a vaccine.

- (D) **an argument that is not sound, but rationally persuasive and actually persuasive to a certain audience**

At one point in time, *very* long ago, people had good reason to believe that the earth is flat. Take them as the target audience.

**Argument: D**

P1: If the earth is flat, then you can fall off the earth by sailing too far into the ocean.

P2: The earth is flat.

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C: You can fall off the earth by sailing too far into the ocean.

- (E) **an argument that is not sound and not rationally persuasive, but actually persuasive to a certain audience**

This basically is any insupportable conspiracy theory. The target audience here, e.g., are people who believe in the theories surrounding MMS.

**Argument: E**

P1: If MMS is a cure for many diseases, you should consume MMS.

P2: MMS is a cure for many diseases.

---

C: You should consume MMS.

MMS, by the way, is short for “Miracle Mineral Supplement”. MMS is nothing else than chlorine dioxide, an industrial bleaching agent. Some people apparently think that it is a good idea to ingest this in high doses and believe that this will cure their diseases – which it doesn't. Drinking bleaching agent makes you ill.

- (F) **an argument that is not rationally persuasive, but sound and actually persuasive to a certain audience**

Suppose that the proponents of Pizzagate were actually, by some weird whim of fate, actually right with their conspiracy. Take them as the target audience of the following argument:

**Argument: F**

P1: If Pizza Gate is entirely fictitious and just a fabrication of some alt-right, then  
Pizza Gate was not a reason to not vote for Clinton in 2016.

P2: Pizza Gate is entirely fictitious and just a fabrication of some alt-right.

---

C: Pizza Gate was not a reason to not vote for Clinton in 2016.

(G) **an argument that is rationally persuasive, and sound and actually persuasive to a certain audience**

**Argument: G**

P1: If you have a first name, then someone gave you a first name.

P2: You have a first name.

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C: Someone gave you a first name.

**Issue 8: *Attacking Arguments***

Show that the following arguments are not suitable to support their conclusion:

**Argument: A**

P1: Precise thinking is like martial arts for the mind.

P2: If something is like martial arts of any kind, then it is meant to attack people.

P3: If something is meant to attack people, then it is bad.

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C: Therefore, precise thinking is bad.

**Argument: B**

P1: The Corona virus emerged either naturally or it was manufactured.

P2: According to some conspiracy theories, the virus was manufactured.

P3: Conspiracy theories are false.

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C: Therefore, the Corona virus emerged naturally.

**Argument: C**

P1: Nuclear power is a CO<sub>2</sub>-neutral energy source.

P2: CO<sub>2</sub>-neutral energy sources are good for the environment.

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C: Therefore, nuclear power is good for the environment.



**Argument: D**

- P1: Many long-term political endeavours of the all parties have proven as futile during the whole Corona crisis.
- P2: The Corona crisis happens over an extended period of time.
- P3: If many political endeavours of a party have proven as futile over an extended period of time, you should not vote for them.
- C1: Therefore, you should not vote for any party.
- P4: If you should not vote for any party, you should not vote at all.
- 
- C: Therefore, you should not vote at all.

**Argument: E**

- P1: Most grandparents are happy if they are visited by their grandchildren.
- P2: You should make your grandparents happy.
- 
- C: Probably, you should visit your grandparents.

**Argument: F**

- P1: For the production of smartphones rare earths are needed.
- P2: The mining of rare earths is often surrounded by great conflict and suffering.
- P3: If P1 and P2, then the production of smartphones involves great conflict and suffering.
- C1: The production of smartphones involves great conflict and suffering.
- P3: If the production of something involves great conflict and suffering, then you should not buy it if you do not absolutely need to.
- 
- C: Therefore, you should not buy smartphones.

**Sketch of a Solution 8:**

Some of the following is a lot more detailed than what you would need to do in an exam. There it would suffice if you gave one plausible attack and reasoned why this indeed is an attack. In real philosophy, however, the analysis of possible attacks of an argument is usually much more extensive than what is shown here.

**Argument: A**

- P1: Precise thinking is like martial arts for the mind.
- P2: If something is like martial arts of any kind, then it is meant to attack people.
- P3: If something is meant to attack people, then it is bad.
- 
- C: Therefore, precise thinking is bad.

(i) **validity is not our point of attack**

The argument is valid, if read charitably. With an uncharitable reading, you could make the case that martial arts of the mind are not actually martial arts (not even with the addition “of any kind”), so P1 and P2 do not connect. If this were the case, then we would not have a logically valid argument, and could make a case that the argument is not valid at all. But, a charitable reading suggests that P1 and P2 are meant to connect and P1 and P2 have a plausible reading where they actually do connect, namely if you do not read them like just suggested.

(ii) **the truth of the premises is our point of attack**

Instead of attacking the argument’s validity, it is much more promising to go for one of the premises. Both P2 plausibly be shown false, at least if the rest of the argument is still to make sense. Also, there is a way in which some people would argue against P3, but this attack would, in my opinion, not hold up.

(a) **attacking P2**

- *Firstly*, one can argue that many kinds of martial arts are not meant to attack people, but meant to defend yourself. In this case, P2 would already be false. I am very confident that this attack works, but as I am not an expert of martial arts, but of philosophy, I want to bring up another, more philosophical point:
- *Secondly*, P2 depends on what it means to be *like martial arts of any kind*. If we say that A is like B, we usually want to say that it A is similar in certain relevant respects to B. But this does not mean that it shares *all* features with B. To illustrate this point, let’s look at an example: If A is the mother of B, then A gave birth to B or adopted B. But if I say that someone is *like* a mother to me, I usually do not want to say that this person gave birth to me or adopted me. So, by saying that someone is like my mother, I explicitly cut out this important feature of mothers. Analogously, martial arts are very complex and have many relevant features over and above being (allegedly) meant to attack people. So, we could say that something is like martial arts in the respect that it allows for self-defence, that it makes you a stronger person, and that it teaches you discipline, but not in the respect that it is meant to attack people. So even if most or all martial arts were meant to attack people, something still could be like martial arts *and* not be meant to attack people.

(b) **attacking P3**

Let us now take a look at P3, which is also might be attackable. (*But note that the following, yet again, can potentially be attacked at many points!*) Whether P3 is true depends on what we mean with “is meant to” and “bad” here. Because the “bad” has not further qualification, it plausibly has to be taken as “bad overall” (in contrast to a more narrow “bad”, like for example “bad for”). So we have to read P3 as:

P2’: If something is meant to attack people, then it is overall bad.

There are now at least two ways of reading the “meant to”: A is meant to X could mean that, (a) that one of the potentially many intended purposes of A is to X, or (b) that A is *primarily* intended to X. If we go for reading (a), things like pepper spray (that is mainly defensive, but arguably in a way also intended for attacking people, even though not primarily) are overall bad according to P2’. That pepper spray is overall bad is implausible. So, we should go for reading (b). We then yield:

P2’’: If something is primarily intended to attack people, then it is overall bad.

This can be criticised, by arguing that the intention is not what makes something overall bad, but there are other relevant, or at least more relevant aspects to something that determined whether it is overall bad or not. For example: it does not hinge on the intention, but on

- which intentions it is actually *actually* used (think of a battle axe that is not intended for cutting wood, but for attacking people – but is nevertheless used by its owner with the sole intention of cutting wood)
- rights, duties and values that are associated with it (think of an American, who argues that guns cannot be overall bad, because Americans have the constitutional right to bear arms and owning and carrying guns has a great tradition)
- the consequences that its existence or its use has (think of a bomb that is manufactured with the intention to attack people, but is never used and eventually destroyed in a safe environment)
- ...

Not all of these points holds up and it is not even clear that any of these points holds up. To discuss them in greater detail we would have to venture into the theory of value very deep and this is something we cannot do at this point.

#### Argument: B

- P1: The Corona virus emerged either naturally or it was manufactured.  
 P2: According to some conspiracy theories, the virus was manufactured.  
 P3: Conspiracy theories are false.

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C: Therefore, the Corona virus emerged naturally.

Please note, first, that I do not currently doubt that Covid-19 emerged naturally.

#### (i) soundness as the point of attack

We could take two ways with this argument: either it is not valid or it has a false premise.

- If we read P3 as “Everything that is claimed by a conspiracy theory is false”, then the argument can be charitably read to be valid, but P3 is then false, because there are conspiracies that claim true things, even though their overall theory might still be false.
- If we read P3 as “the overall theory of each and every conspiracy theory is false” or more plausibly “the overall theory of most conspiracy theories is false”, then the argument is not valid anymore, because it could be the case that virus was indeed manufactured and that this is one of the few things that conspiracy theories get right.

#### (ii) fallacy as the point of attack

Also, many readings of the argument are a *petitio principii*: if we assume that conspiracy theories claim that the virus was manufactured, then we have to already believe in C in order to accept P3.

#### Argument: C

- P1: Nuclear power is a CO<sub>2</sub>-neutral energy source.  
 P2: CO<sub>2</sub>-neutral energy sources are good for the environment.

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C: Therefore, nuclear power is good for the environment.

This argument quite clearly has a false premise: not all CO<sub>2</sub>-neutral energy sources are good for the environment. While CO<sub>2</sub>-neutrality might be necessary, it is not sufficient for being good for the environment, because, e.g., toxic and nuclear waste are not good for the environment.

**Argument: D**

- P1: Many long-term political endeavours of the all parties have proven as futile during the whole Corona crisis.  
P2: The Corona crisis happens over an extended period of time.  
P3: If many political endeavours of a party have proven as futile over an extended period of time, you should not vote for them.  
C1: Therefore, you should not vote for any party.  
P4: If you should not vote for any party, you should not vote at all.
- 
- C: Therefore, you should not vote at all.

P3 is false: if a party had to deal with special circumstances like a pandemic, because it cannot be plausibly demanded of a party that it foresees all future events that could interfere with their plans, even if these events are not foreseeable (like it is true for the pandemic).

**Argument: E**

- P1: Most grandparents are happy if they are visited by their grandchildren.  
P2: You should make your grandparents happy.
- 
- C: Probably, you should visit your grandparents.

The argument is defeated by the current Corona crisis.

**Argument: F**

- P1: For the production of smartphones rare earths are needed.  
P2: The mining of rare earths is often surrounded by great conflict and suffering.  
P3: If P1 and P2, then the production of smartphones involves great conflict and suffering.  
C1: The production of smartphones involves great conflict and suffering.  
P3: If the production of something involves great conflict and suffering, then you should not buy it if you do not absolutely need to.
- 
- C: Therefore, you should not buy smartphones.

This argument is very clearly not valid. From P3 and C1 you can only conclude that you should not buy smartphones if you do not absolutely need to. So, the argument is missing a premise that says that we do not absolutely need smartphones. Whether this is true or not can be debated and is highly

dependent on what is meant with “absolutely need to”.

### **Issue 9: *Friendly Attack***

Practice your argument skills in your group.

1. Take an argument from one of your group members.
2. Try to come up with a plausible attack against this argument.
3. Hand out an own argument to have it attacked. (This can be an entirely new argument, or an improved version of an argument that you or another group member has given previously. It can either be an argument that you believe in if you want to test it, or an argument in which you deliberately hid a weakness.)

### **Issue 10: *Comeback***

On exercise sheet PT3, you were to come up with an argument for something you very firmly believe in. Go back to this argument and think of at least three (reasonably plausible) ways to attack it, and defend your own argument against those attacks. I.e. come up with three arguments that give prima facie<sup>2</sup> plausible reason why your argument is not suitable to support its conclusion and then again, give arguments that show that these arguments, in turn, are not suitable to support their conclusion.

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<sup>2</sup>Remember: “Prima facie” means “on first glance”.