

# Criticizing Arguments

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## Introduction

Thus far, we've focused on how you go about *understanding* complex arguments. But frequently, you want (and need) to do more than understand the argument—you want to *critically engage* with it. If one understands a passage, one can give a fair *gloss* on what the author thinks. If one critically engages with that passage, one can give a fair *evaluation* of what the author thinks. In other words, a critically engaged reader can tell us whether the author's argument provides good reasons to accept his/her conclusion.

How do you do that? Often, it's thought that once you understand something, critical engagement is just "following your convictions," "trusting your gut," etc. If that were true, then there would be no real value in understanding the argument, since neither your convictions nor your gut are sufficient unto themselves to provide a clear, intelligent, and balanced evaluation of the arguments before you. Rather, critically evaluating an argument is a highly disciplined, rigorous process.

Just like paraphrasing, critical evaluation is part of the reading process. Only passive readers do not evaluate the quality of authors' arguments. When students err on the side of passivity, it is frequently because they fear that their criticisms are based on misunderstanding of their readings. Hopefully, by refining the paraphrasing skills discussed earlier, your confidence in understanding what you've read will increase.

Another impediment to reading critically is the thought that disagreeing with someone is somehow disrespectful or impolite. In some social contexts, this is certainly true, but not when the disagreement is based on a charitable interpretation of a scholarly work, and the criticisms are rooted in rigorous thinking.

Our discussion of paraphrasing has already equipped you with the tools for reading texts charitably, so all that remains is to show you how to criticize an author's reasoning in a rigorous manner. To that end, recall three things. First, an argument is sound if and only if:

- (a) It is valid, and
- (b) All of its premises are true.

Second, an argument is (deductively) valid if and only if:

- (a) If all of its premises are true, then its conclusion must be true.

Third, a good paraphrase requires that you interpret authors' reasoning as valid.

**Comprehension check.** What is a deductively valid argument? How important is this concept to this course? How much will you be penalized if you fail to correctly define this concept? Given the two definitions above, what can we say about the conclusion of a sound argument? Make sure you can come up with examples of valid but unsound arguments.

Let us now add a new ingredient to this mix: critical evaluation of an argument is nothing more than *ascertaining whether or not the author's argument is sound*. Combining these four points, this means that critical evaluation of a *well-paraphrased* argument is nothing more than *ascertaining whether or not one or more of the author's premises is false*. So a good paraphrase makes the critical evaluation of a passage much easier.

Hereafter, I'll assume that you have paraphrased successfully. So, all we need to do is focus on how you ascertain the truth and falsity of a premise. Roughly, the idea is this:

- Step 1: Do an initial evaluation of the paraphrase.*
- Step 2: Identify the main operator of each of your premises.*
- Step 3: Know the general conditions that make such statements false, and apply to the case at hand.*
- Step 4: Use this information to argue that a premise is false.*

Let's examine these steps by critically engaging our paraphrase of Singer from before:

*1<sup>st</sup> Argument*

- 3\*. If it is in our power to give most of our money to humanitarian relief efforts, then it is in our power to prevent suffering and death from lack of food, shelter, and medical care, without thereby sacrificing anything of comparable moral importance.
- 4\*. It is in our power to give most of our money to humanitarian relief efforts.
- C2. It is in our power to prevent suffering and death from lack of food, shelter, and medical care, without thereby sacrificing anything of comparable moral importance.

*2<sup>nd</sup> Argument*

- C2. It is in our power to prevent suffering and death from lack of food, shelter, and medical care, without thereby sacrificing anything of comparable moral importance.
1. Suffering and death from lack of food, shelter, and medical care is bad.
  2. If a thing is bad and in our power to prevent it from happening without thereby sacrificing anything of comparable moral importance, then that thing is a state of affairs we ought, morally, to prevent from happening.
- C3. We ought, morally, to prevent suffering and death from lack of food, shelter, and medical care.

**Step 1: Initial Evaluation of Paraphrase**

Above, I expressed doubts about the conventional role of “following your convictions,” “trusting your gut,” etc. when criticizing a text. On a widespread view, convictions have the *final word* on whether an idea is good or bad. The problem with this approach is that anyone who does not share your convictions has no *reason* to agree with your assessment of an idea. So, when convictions are the final word, critical engagement—and constructive conversation—frequently stops.

On the view I am offering, your convictions have the *first word* on whether an idea is good or bad, and *arguments* have the final word. In other words, use your convictions to guide you to the best arguments you can offer for your view—but also be ready to *revise* your convictions if these arguments don’t pass muster!

With this in mind, there are only two questions to ask at this stage.

- Would all reasonable people agree with the conclusion?
- Would all reasonable people agree with all of the premises?

Here’s the important thing: you **want** to be able to answer *at least* one of these two questions negatively. Otherwise, you’re being too passive as a reader, and not challenging yourself sufficiently. (Here’s a good incentive: even coming to class with the *observation* that a reasonable person could disagree with an author’s claim impresses a lot of professors. But we’re going to do even better than that: by the end of this, you’ll have an *argument* for why an author’s claim is reasonable thing to disagree about. That *really* impresses professors.)

You are reasonable people (I hope.) Hence, *one* way to answer these questions is to ask whether *you* agree with the conclusion and premises. However, this is not the *only*

way to answer this question, and almost certainly not the *best* way. Even if *you* agree with the conclusion and the argument, imagine how a smart person who disagrees with the author would respond to the premises and conclusions. For instance, if you're on the far left with your political views, imagine how a really smart right-leaning moderate would respond to the same argument.

**Comprehension check.** Why did I choose a right-leaning *moderate* as the appropriate foil to the far left position? Why not an *extreme* right wing position?

Let's go through the Singer paraphrase to see what these questions yield.

*Conclusion: We ought, morally, to prevent suffering and death from lack of food, shelter, and medical care.*

At first blush, this might seem uncontroversial. But note that if one *ought, morally*, to do some action A, then *not* doing A warrants some kind of *disapproval* or negative sanction. Many people would agree that it's *good* to aid people who are suffering and dying in the ways Singer describes, but they would *not disapprove* of someone who did not do these things. (Singer is very explicit that he means something stronger than this—look at the original passage.) So, a reasonable person might well disagree with Singer's conclusion.

What exactly does this tell you? Since we're assuming a good paraphrase, we know that Singer's reasoning is valid. Hence if the conclusion is false, then at least one of the premises must also be false. *So, if someone disagrees with a conclusion, she must also disagree with one of the premises.*

This is important, since it means that your work is not done: you must figure out with which premise you disagree, and *why* you disagree with it. If you do not disagree with any of the premises, then you should not disagree with the conclusion—on pain of contradicting yourself. But merely disagreeing with a premise without having a *reason* or *argument* as to why that premise is false means that your position is arbitrary and unjustified. Since neither inconsistency nor arbitrariness are desirable qualities of an intelligent person's perspective, your convictions and hunches can only motivate you to find a good argument; so your convictions cannot be the final word.

But what if all reasonable people would agree with the conclusion? It's tempting to think that your work is done. However, Singer might well have offered *bad reasons* for a correct conclusion. For instance, consider the following:

Anything that Zeus says is true.

Zeus says that I ought not ignite kittens for fun.

Therefore I ought not ignite kittens for fun.

Now, it's clear that I ought not ignite kittens for fun, but it's also clear that my reasons—which hinge on Zeus' divine authority, are bad. This leads quite naturally to the next question:

*Would all reasonable people agree with all of the premises?*

In this case, quite clearly, not all reasonable people would agree with the premises. Could the same be said in the Singer example? Here are the premises under consideration:

- 3\*. If it is in our power to give most of our money to humanitarian relief efforts, then it is in our power to prevent suffering and death from lack of food, shelter, and medical care, without thereby sacrificing anything of comparable moral importance. (Conditional)

- 4\*. It is in our power to give most of our money to humanitarian relief efforts. (Simple)
- 3. Suffering and death from lack of food, shelter, and medical care is bad. (Simple)
- 4. If a thing is bad and in our power to prevent it from happening without thereby sacrificing anything of comparable moral importance, then that thing is a state of affairs we ought, morally, to prevent from happening. (Universal)

**Comprehension check.** Note that C2 is used as a premise in Argument 2 above. Why did I not include it here?

If you have strong convictions that some of these premises are objectionable, take note, since this is often a decent guide to what you do in the remaining steps (i.e. Steps 2-4.) If you don't, the remaining steps will help you to think of ways that a reasonable person might disagree with one or more of these premises.

### Step 2: Identify Main Operators

If you've paraphrased correctly, it will be easy to execute Step 2. There are only five possibilities:

Main operator	Common Argument Forms In Which Used
No operator, i.e. simple proposition	Modus Ponens, Instantiation
Not, i.e. negated proposition	Modus Tollens, Disjunctive Syllogism
Or, i.e. disjunction	Disjunctive Syllogism
If-Then, i.e. conditional or hypothetical proposition	Modus Ponens, Modus Tollens, Hypothetical Syllogism
All, universal proposition or generalization	Instantiation

In the Singer paraphrase, only some of these operators appear.

- 3\*. **If** it is in our power to give most of our money to humanitarian relief efforts, **then** it is in our power to prevent suffering and death from lack of food, shelter, and medical care, without thereby sacrificing anything of comparable moral importance. (Conditional)
- 4\*. It is in our power to give most of our money to humanitarian relief efforts. (Simple)
- 3. Suffering and death from lack of food, shelter, and medical care is bad. (Simple)
- 4. **If a thing** is bad and in our power to prevent it from happening without thereby sacrificing anything of comparable moral importance, then that

thing is a state of affairs we ought, morally, to prevent from happening.  
(Universal)

In what follows, I'll discuss Steps 3 and 4 for each of the three main operators at play in Singer's premises (simple, conditional, universal.) Afterwards, I'll cover the remaining two (negation and disjunction).

### Steps 3 and 4 for Simple Statements

Singer uses two simple premises:

3. Suffering and death from lack of food, shelter, and medical care are bad.

4\*. It is in our power to give most of our money to humanitarian relief efforts.

Let's walk through Steps 3 through 5 as they relate to simple statements, using Premises 3 and 4\* as illustrations.

#### Step 3: Conditions that make simple statements false

Simple statements have the form  $p$ . Hence, they are false if and only if *it is not the case that  $p$* . For instance, Premise 3 will be false if and only if:

Not-3 Suffering and death from lack of food, shelter, and medical care are **not** bad.

Similarly, Premise 4\* will be false if and only if:

Not-4\* It is **not** in our power to give most of our money to humanitarian relief efforts.

#### Step 4: Arguing that simple statements are false

So, at this point, you know what would be required *if* Premises 3 or 4\* are false. What you don't yet have is a *reason* or *argument* to believe that they are false. At this point, you have to *construct* an argument. Here, I suggest that you use a common argument form with a conclusion of either Not-3 or Not-4\*. Let's start with Not-3. The two easiest ones would have this form:

*Modus Ponens*

If  $p$ , then suffering and death from lack of food, shelter, and medical care are **not** bad.

$p$ .

Not-3. Therefore, suffering and death from lack of food, shelter, and medical care are **not** bad.

*Modus Tollens*

If suffering and death from lack of food, shelter, and medical care **are** bad, then  $q$ .

It is not the case that  $q$ .

Not-3. Therefore, suffering and death from lack of food, shelter, and medical care are **not** bad.

Now you have to get creative. What values of  $p$  (in the Modus Ponens Argument) or  $q$  (in the Modus Tollens Argument) would produce the most plausible premises? (Note that you only need to "fill out" either the Modus Ponens or the Modus Tollens, but not both, in order to have a criticism.) Now I imagine a reasonable person liable to disagree with

Singer: say a savvy libertarian (not, e.g. the ones who end up being public figures.) Here is at least one argument that has standing chance:

- O1. If suffering and death from lack of food, shelter, and medical care are a consequence of exercising our freedom, then suffering and death from lack of food, shelter, and medical care are not bad.
- O2. Suffering and death from lack of food, shelter, and medical care are a consequence of exercising our freedom.
- Not-3. Therefore, suffering and death from lack of food, shelter, and medical care are not bad.

(I use “O” for “Objection.”) Now, to be sure, this argument isn’t bulletproof, but note that it’s an interesting argument to think through. If it’s unsound, why is it unsound?

Wrestling through that issue will help us think through the relative importance of freedom when compared to suffering and death. That’s the kind of critical engagement with a text that you should be aiming for when you read.

Let’s generalize the strategies here.

- Simple statements of the form  $p$  are false when there’s a sound argument that *not- $p$* .
- Modus ponens and modus tollens are two promising ways to generate sound arguments that *not- $p$* .

Note that from here, it’s pretty easy to convert an argument that *not- $p$*  into a clear and concise paragraph in a paper. This is a *very* useful thing to keep in mind.

### Steps 3 and 4 for Conditional Statements

So we now have a recipe for criticizing simple statements. Things get only slightly more complex when we have criticize more complex statements, such as conditionals. Singer uses one conditional statement in his argument:

- 3\*. If it is in our power to give most of our money to humanitarian relief efforts, then it is in our power to prevent suffering and death from lack of food, shelter, and medical care, without thereby sacrificing anything of comparable moral importance.

#### Step 3: Conditions that make conditional statements false

Any statement of the form “If  $p$  then  $q$ ” is false if and only if  $p$  is true and  $q$  is false. For instance, 3\* will be false if:

It is in our power to give most of our money to humanitarian relief efforts, **and** it is **not** in our power to prevent suffering and death from lack of food, shelter, and medical care, without thereby sacrificing anything of comparable moral importance.

That’s a bit tricky, so let’s look at a simpler example. Suppose that I assert the following in a syllabus:

*Conditional 1*

If you do all of your homework, then you can earn no lower than a B-minus in this course.

Under what conditions have I not lived up to this promise in the syllabus? When you do all of your homework and you earn lower than a B-minus in the course.

Before proceeding, I caution you that people often raise other kinds of criticisms against if-then statements that are not legitimate criticisms. For instance, consider the following conditional:

*Conditional 2*

If everyone is good, then prisons are unnecessary.

It is tempting—particularly if you are an advocate for the penal system—to reply, “But not everyone is good!” While this is (sadly) true, it is not a good criticism of Conditional 2. For, Conditional 2 does *not* claim that everyone *is* good. Rather, it claims only that *if* everyone is good, then prisons are unnecessary. So, whenever someone asserts, “If *p*, then *q*,” the criticism, “It is not the case that *p*,” misses the point.

Another common mistake involves the following inference:

If *p* then *q*.

It is not the case that *p*.

So it is not the case that *q*.

Let’s use Conditional 2 again to appreciate this fallacy:

If everyone is good, then prisons are unnecessary.

It is not the case that everyone is good.

So, prisons are necessary.

Can you see why this inference is invalid? Here is a counterexample:

Suppose that it is more effective to rehabilitate and educate criminals than to imprison them. Then it could still be the case that prisons are unnecessary, even if it is still true that if everyone is good, then prisons are unnecessary, and not everyone is good.

So I stress, there are many responses to if-then statements that are *natural* but that are *bad criticisms*, i.e. that do not help you to ascertain whether those if-then statements are false.

#### Step 4: Arguing that conditional statements are false

As before, you know what would be required *if* Premises 3\* is false, and what you lack is a *reason* to think that these requirements have been met. Essentially, you will have to argue for this by daisy-chaining two arguments as follows:

*Argument 1:*

If *r*, then *p* and *not-q*.

*r*.

So, *p* and *not-q*.

*Argument 2:*

*p* and *not-q*.

So, it is not the case that if *p* then *q*. (Alternatively, *p* does not entail *q*.)

To simplify things, you can skip the middle step, and combine these two arguments as follows:

If *r*, then *p* and *not-q*.

*r*.



So, it is not the case that if  $p$  then  $q$ . (Alternatively,  $p$  does not entail  $q$ .)

Treat this as a new common argument form. Unfortunately, it has no fancy name, so let's call it Objection to Conditional, or OC for short. This particular example fits OC as follows:

If  $r$ , then it is in our power to give most of our money to humanitarian relief efforts, **and** it is **not** in our power to prevent suffering and death from lack of food, shelter, and medical care, without thereby sacrificing anything of comparable moral importance.

$r$ .

Not-3\* It is **not** the case that **if** it is in our power to give most of our money to humanitarian relief efforts, **then** it **is** in our power to prevent suffering and death from lack of food, shelter, and medical care, without thereby sacrificing anything of comparable moral importance.

As before, we need to fill in  $r$  with something that makes this application of OC plausible. Essentially, we're looking for  $r$  to explain how it can be in our power to give most of our money to humanitarian relief efforts *while at the same* being **out** of our power to prevent suffering and death without significant sacrifice. Here is one option:

O3. If individual freedom is of the highest moral importance and giving most of our money to humanitarian relief efforts lessens individual freedom, then it is in our power to give most of our money to humanitarian relief efforts, **and** it is **not** in our power to prevent suffering and death from lack of food, shelter, and medical care, without thereby sacrificing anything of comparable moral importance.

O4. Individual freedom is of the highest moral importance and giving most of our money to humanitarian relief efforts lessens individual freedom.

Not-3\* It is **not** the case that **if** it is in our power to give most of our money to humanitarian relief efforts, **then** it **is** in our power to prevent suffering and death from lack of food, shelter, and medical care, without thereby sacrificing anything of comparable moral importance.

**Comprehension check.** These sentences are getting pretty torturous, aren't they? Can you still identify  $p$ ,  $q$ , and  $r$  in the argument involving O3, O4, and Not-3\*? Can you think of a more elegant way to present this in plain English, e.g. as you would if this were a paragraph in an essay?

### Steps 3 and 4 for Universal Statements

Finally, Singer has one more premise:

4. If **a thing** is bad and in our power to prevent it from happening without thereby sacrificing anything of comparable moral importance, then that thing is a state of affairs we ought, morally, to prevent from happening. (Universal)

This is a *universal proposition*, since it is saying that *all* bad things that are in our power to prevent, etc. are things that we are obligated to prevent.

### Step 3: Conditions that make universal statements false

Any statement of the form “All *F*’s are *G*’s” is false if and only if there is at least one *F* that is not a *G*. In this case:

**There is at least one thing** that is bad and in our power to prevent from happening without thereby sacrificing anything of comparable moral importance, and that thing is **not** a state of affairs we ought, morally, to prevent from happening.

### Step 4: Arguing that universal statements are false

As with the previous cases, we now need an argument. This frequently involves a two step argument as well:

*Argument 1*

*a* is an *F* and not a *G*.

So at least one *F* is not a *G*.

*Argument 2*

At least one *F* is not a *G*.

So it is not the case that all *F*’s are *G*’s.

As before, we can streamline this, and give it a name. Let’s call it *Counter-instance*. Here is its streamlined form:

*Counter-Instance*

*a* is an *F* and not a *G*.

So it is not the case that all *F*’s are *G*’s.

Applying this to Premise 4:

*a* is bad and in our power to prevent from happening without thereby sacrificing anything of comparable moral importance, and *a* is **not** a state of affairs we ought, morally, to prevent from happening.

Not-4 So it is not the case that if a thing is bad and in our power to prevent it from happening without thereby sacrificing anything of comparable moral importance, then that thing is a state of affairs we ought, morally, to prevent from happening.

Here is an application of Counter-Instance that seems to be plausible:

O5. *Other people’s obesity* is bad and in our power to prevent from happening without thereby sacrificing anything of comparable moral importance, and **this is not** a state of affairs we ought, morally, to prevent from happening.

Not-4 So it is **not** the case that if a thing is bad and in our power to prevent it from happening without thereby sacrificing anything of comparable moral importance, then that thing is a state of affairs we ought, morally, to prevent from happening.

## Interlude

This exhausts the premises in Singer’s argument. Note that you don’t need to criticize *every* premise. Indeed, having just one strong criticism—i.e. one sound argument that *one* of Singer’s premises is false—is sufficient to cast doubt on Singer’s argument on the whole.

It’s important to stress that simply attacking the premises of Singer’s argument shows that his conclusion is *unsupported* or *unjustified*. It does not show that his conclusion is *false*, for there could be a better argument that Singer has not offered which does support his conclusion. A *really* good reader will thus do one of two things:

Step 5:

- A. If you agree with Singer’s conclusion, you should offer a sound argument for that conclusion.
- B. If you disagree with his conclusion, you should provide a sound argument to that effect. As with premises, you identify the main operator, learn the general conditions under which statements of this form are false, and then argue that the conclusion is false.

In many of my classes (and on the problem sets in this class), B-students can perform Steps 1 through 4, but only A-students tend to be able to do Step 5. Challenge yourself; be the A-student that I know you are capable of becoming.

However, before we wrap up, recall that there are two more main operators with which you need to gain “critical know-how.” These are disjunctions and negations. Since Singer didn’t use these as premises, we’ll need another argument to criticize. Let’s use this one:

- 1. Either morality is the word of God or morality is subjective.
- 2. Morality is not subjective.
- 3. So morality is the word of God.

Premise 1 is a disjunction; 2 is a negation. Let’s see how we criticize them.

## Steps 3 and 4 for Negations

### Step 3: Conditions that make negations false

Any statement of the form “It is not the case that  $p$ ” is false if and only if  $p$  is true.

This, I hope, is straightforward enough. For instance, if I say, “It’s not the case that humans are mammals,” I’ve uttered something false precisely because humans *are* mammals.

In this example, Premise 2 is thus false if and only if:

Not-2 Morality **is** subjective.

### Step 4: Arguing that negations are false

All you need to do is search for common argument forms which have simple statements as their conclusions. Modus ponens, disjunctive syllogism, and instantiation are all promising. In this case, I’ll use instantiation:

- O1. All things about which many people disagree are subjective.

O2. Many people disagree about morality.  
 Not-2. So morality is subjective.

## Steps 3 and 4 for Disjunctions

### Step 3: Conditions that make disjunctions false

Any statement of the form “ $p$  or  $q$ ” is false if and only if  $p$  is false and  $q$  is false. Thus, Premise 1 is false if and only if:

Morality is **not** the word of God **and** morality is **not** subjective.

### Step 4: Arguing that disjunctions are false

As with other statements, disjunctions require daisy-chaining arguments together. What you need is the following:

*Argument 1*

If  $r$ , then  $not-p$  and  $not-q$ .

$r$ .

So,  $not-p$  and  $not-q$ .

*Argument 2*

$Not-p$  and  $not-q$ .

So it is not the case that  $p$  or  $q$ . (Alternatively, neither  $p$  nor  $q$ .)

We can streamline and nickname this *False Dilemma*:

If  $r$ , then  $not-p$  and  $not-q$ .

$r$ .

So, neither  $p$  nor  $q$ .

In this particular case:

If  $r$ , then Morality is **not** the word of God **and** morality is **not** subjective.

$r$ .

Not-1. So, morality is **neither** the word of God **nor** subjective.

Frequently, we do this by thinking of  $r$  an unconsidered *third option*. For instance,

O3. If morality is the product of human evolution, then it is not the word of God and it is not subjective.

O4. Morality is the product of human evolution.

Not-1. So, morality is neither the word of God nor subjective.

## Summary

- Being a good reader involves more than just *understanding* (and hence *paraphrasing*) a text; it also requires *rigorous critical evaluation* of that text.
- Critical evaluation of a well-paraphrased argument is nothing more than ascertaining whether or not one or more of the author’s premises is false.
- Ascertaining whether or not one or more of the author’s is false involves four steps.

- *Step 1: Do an initial evaluation of the paraphrase.*
- *Step 2: Identify the main operator of each of your premises.*
- *Step 3: Know the general conditions that make such statements false, and apply to the case at hand.*
- *Step 4: Use this information to argue that a premise is false.*
- *Step 5:*
  - A. *If you agree with the author’s conclusion, you should offer a sound argument for that conclusion.*
  - B. *If you disagree with the author’s conclusion, you should provide a sound argument to that effect. As with premises, you identify the main operator, learn the general conditions under which statements of this form are false, and then argue that the conclusion is false.*

*Pointers for Step 1: Initial evaluation of paraphrase*

- Your convictions and gut feelings should be the first word, not the final word, on whether an argument is good or bad.
- Your initial reflections should include the following questions:
  - Would all reasonable people agree with the conclusion?
  - Would all reasonable people agree with all of the premises?
- You *want* to be able to answer *at least* one of these two questions negatively. Otherwise, you’re being too passive as a reader.
- Even if *you* agree with the conclusion and the argument, imagine how a smart person who disagrees with the author would respond to the premises and conclusions.
- If someone disagrees with a conclusion, she must also disagree with one of the premises. You’re not special: if *you* disagree with a conclusion, *you* must also disagree with one of the premises.

*Pointers for Step 2: Identify Main Operators*

- There are five possibilities for a main operator: no main operator (simple proposition), conditional, universal, disjunction, or negation.
- A good paraphrase will clearly indicate the main operator.

*Pointers for Step 3: General Conditions*

<b>Name of statement</b>	<b>Form of statement (main operator in bold)</b>	<b>Conditions of falsehood</b>
Simple	<i>p</i>	<i>p</i> is false.
Conditional	<b>If <i>p</i>, then <i>q</i></b>	<i>p</i> is true and <i>q</i> is false.
Universal	<b>All <i>F</i>'s are <i>G</i>'s.</b>	There is at least one <i>F</i> that is not a <i>G</i> .
Disjunction	<b>Either <i>p</i> or <i>q</i>.</b>	<i>p</i> is false and <i>q</i> is false.
Negation	<b>It is not the case that <i>p</i>.</b>	<i>p</i> is true.

*Pointers for Step 4: Arguments*

- Once you know what the negation of your premise looks like, argue for it using common argument forms in which it is the conclusion.
- To criticize a simple proposition, *p*, modus ponens and modus tollens work best.

- To criticize a conditional proposition, *if  $p$  then  $q$* , we introduced a new argument pattern, *Objection to Conditional* (OC), for this purpose.
- To criticize a universal proposition, *all  $F$ 's are  $G$ 's*, we introduced a new argument pattern, *Counter-Instance*, for this purpose.
- To criticize a disjunction,  *$p$  or  $q$* , we introduced a new argument pattern, *False Dilemma*, for this purpose.
- To criticize a negation, *not- $p$* , modus ponens, disjunctive syllogism, and instantiation work best.