

CHAPTER 2 - PREMISE / SUBCONCLUSION / ULTIMATE CONCLUSION ARGUMENTS

What You'll Learn in this Chapter

Welcome! Here you'll learn some more about reasoning. In particular, you'll learn

More about recognizing arguments. Specifically,

- how to distinguish arguments from explanations of why

More about analyzing arguments. Specifically,

- how to recognize when questions, commands, and statements should be rephrased and included in your list of ideas,
- how to recognize when statements should be ignored,
- what to do if you can't identify the ultimate conclusion of an argument, and
- how to diagram arguments with subconclusions.

More about evaluating arguments. Specifically,

- how to evaluate arguments with subconclusions.

More about constructing arguments. Specifically

- how to construct arguments with subconclusions, and
- how to write passages containing arguments with subconclusions.

Example 1

Step 1 – Recognizing an Argument

As usual, we'll start by determining whether or not a certain passage contains an argument.

“Are you wondering why the administration confiscated copies of the student newspaper? I think I can explain it. The administration believed that the contents of the student paper would undermine the dean's authority. Therefore, it confiscated copies of paper.”

Stop and Think

Does this passage contain an argument or not?

It's tempting to say that this passage contains an argument. After all, it contains the conclusion indicator word “therefore,” and the inclusion of those words does give us some reason to think that a passage contains an argument.

But remember, an argument is a unit of reasoning which attempts to prove that a certain idea is true by citing other ideas as evidence. Does this passage try to convince us that

something is true? I don't think so. We can't always identify arguments by spotting inference indicator expressions. Things are a little more complicated than that.

Explanations of Why

Let's look at this passage again, noting the inference indicator expression "therefore."

"Are you wondering why the administration confiscated copies of the student newspaper? I think I can explain it. The administration believed that the contents of the student paper would undermine the dean's authority. **Therefore**, it confiscated copies of paper."

Since "therefore" is a conclusion indicator expression, if this passage contained an argument, it would be trying to convince us that the administration confiscated copies of the student paper.

But if we look *carefully* we see that it's *not* trying to convince us of this. The passage assumes that we already *know* that the administration confiscated copies of the paper. It's simply trying to account for *why* this happened. The fact that the administration believed that the paper would undermine the dean's authority is cited as the cause of the confiscation, explaining how it came about, and isn't supposed to convince us *that* the confiscation occurred. This means that this passage contains an explanation, not an argument. Since there are different kinds of explanation, we'll call passages that try to account for why something is the case, "explanations of why."

This example teaches us something very important. Until now, we've relied upon inference indicator expressions when identifying arguments. And so far it's worked because up until now both of the following conditions held: first, if a passage *did* contain inference indicator expressions then it *was* an argument, and second, if a passage *didn't* contain inference indicator expressions then it *wasn't* an argument.

In real life, however, inference indicator expressions don't conclusively establish that a something is an argument. Sometimes a passage can contain inference indicator expressions without containing an argument and sometimes a passage can contain an argument without containing inference indicator expressions. We'll examine passages that contain arguments even though they don't contain inference indicator expressions in Chapter Three. For now, we'll note that a passage can contain inference indicator expressions even though it doesn't contain an argument. This can happen because *both* arguments *and* explanations of why can use indicator expressions, even though they are very different things. Arguments try to convince us *that* something is the case, whereas explanations of why assume that we already know that something is the case and try to explain to us *why* things are the way they are.

While we're still on the subject of explanations of why, however, I'd like to respond to a common question about explanations and give you a quick word of advice.

First the common question. Many people notice that an explanation of why is trying to convince us that a certain explanation is correct, and they wonder why this doesn't make the explanation an argument.

Although it's true that an explanation of why wants to us believe that a certain explanation is correct, this doesn't make the explanation an argument because it isn't really trying to *convince* us that a certain explanation is correct. It's just presenting that explanation.

Suppose, for example, that I say "Janice missed the interview because her car broke down," and thereby give an explanation for why Janice missed the interview. Am I trying to convince you that this explanation is correct? I don't think so. I'm simply *giving* you the explanation. I want you to believe it, of course, but I'm not trying to convince you of it. I'm just *telling* you.

If I were trying to *convince* you of my explanation, I'd say something like "I think that Janice missed the interview because her car broke down. Elliot thinks she missed it because she didn't really want the job. But he's wrong and I'm right. My explanation is better than his. After all, Janice has been talking about that interview for weeks and she even bought a new suit to wear. She needs the money desperately and the position was exactly the kind of job she's trained for. Clearly, she wanted to make it to that interview! However, Janice's car has been giving her problems for a long time, and I saw it getting towed to a garage around the time Janice should have been at the interview. So Janice missed the interview because her car broke down and not for any other reason."

See the difference? In the first case, I just *said* something. What I said was an explanation, and I wanted you to believe it, but I didn't give you any *reason* to believe it. In the second case, I *did* give you reason to believe my explanation. That's why the second case is an argument and the first case isn't.

Now the quick word of advice. Sometimes it can be difficult to determine whether a passage contains an argument or an explanation of why. When I'm uncertain, I first identify what I call the "target" of the passage – the idea that would be the ultimate conclusion if the passage were an argument and would be the fact explained if the passage were an explanation. I then ask myself, "Does this passage try to convince us *that* this is true, or does it take for granted that we already *know* that it's true and try to help us understand *why* it's true, what *caused* it, or *how* it came about?" If the passage is trying to convince us *that* this claim is true, it's an argument. If a passage assumes that we already know that this claim is true and tries to help us understand *why* it's true, what *caused* it, or *how* it came about, it's an explanation of why. (Remember, when a child asks for an explanation for why the sky is blue, she doesn't want an argument to prove *that* it's blue. If she didn't already *know* that it's blue, she couldn't wonder *why* it's blue.)

Summary

We've been discussing the following passage:

“Are you wondering why the administration confiscated copies of the student newspaper? I think I can explain it. The administration believed that the contents of the student paper would undermine the dean's authority. Therefore, it confiscated copies of paper.”

It turned out that this passage didn't contain an argument, but it still taught us some things, including:

Argument recognition skills, specifically

- that not every passage that contains an inference indicator expression contains an argument, and
- how to distinguish arguments from explanations of why.

Example 2

Step 1 – Recognizing an Argument

What about this passage? Does it contain an argument?

“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”

Stop and Think

Does this passage contain an argument or not?

Very good! You said that this passage does contain an argument and I agree.

Step 2- Analyzing the Argument

Identifying the Ultimate Conclusion

Stop and Think

What is the ultimate conclusion of this argument?

Since this passage contains an argument, we may use the inference indicator expression “therefore” to tell us what the conclusion might be.

“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? **Therefore**, the administration should oversee the student newspaper.”

The “therefore” indicates that the ultimate conclusion of this argument is the idea that the administration should oversee the student newspaper. Does that seem right? Is this passage trying to convince us that the administration should oversee the student newspaper? It seems to me that this passage *is* trying to convince us that the administration should oversee the student newspaper by pointing out that the students are incapable of running the paper responsibly, and so we may start our list of ideas as follows:

“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? **Therefore**, the administration should oversee the student newspaper.”

U 1. The administration should oversee the student newspaper.

(The fact that the passage doesn’t *presuppose* that the administration should oversee the paper, but instead tries to *persuade* us of this, is what makes this passage an argument, rather than an explanation of why.)

Identifying the Other Important Ideas

Stop and Think

What other important ideas are there in this passage? Specifically, do you think that the first sentence - “Some people on campus are in favor of an independent student newspaper whereas other people oppose it”- conveys an important idea?

In fact, the first sentence doesn’t convey an important idea here, so we’ll ignore it.

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? **Therefore**, the administration should oversee the student newspaper.”~~

U 1. The administration should oversee the student newspaper.

Ignoring this sentence might seem a little strange because this is the first statement sentence we’ve seen that doesn’t convey an important idea. Let’s think some more about this.

Unimportant Statements

In Chapter 1, we learned that ideas are complete thoughts that are either true or false, that statements convey ideas, and that an idea is important if it helps to establish the truth of the conclusion. The fact that an idea helps us to establish the ultimate conclusion is what makes that idea important to the argument. It just so happened, in Chapter 1, that all statements in an argument were important because they all helped to establish the ultimate conclusion.

But in real-life, things aren't that tidy. Sometimes a statement in an argument conveys an idea that *isn't* relevant to establishing the truth of the ultimate conclusion. The first sentence in the passage under consideration like this.

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn't it obvious that students are incapable of running the paper responsibly? **Therefore**, the administration should oversee the student newspaper.”~~

U 1. The administration should oversee the student newspaper.

“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it,” isn't used to convince the reader that the administration should oversee the student newspaper. Since an argument is supposed to prove that its ultimate conclusion is true, statements sentences that don't help establish the truth of the ultimate conclusion aren't really part of the argument.

Usually, an author includes such sentences to set the stage for the argument, to pack an emotional punch, to entice the reader, or to dilute what would otherwise be too concentrated a piece of reasoning. All of these functions are very useful, but because the sentences that fulfill them aren't part of the *argument*, and because the argument is all that concerns us, we'll call such sentences “unimportant statements” and we won't include them in our list. Consequently, we'll ignore the first sentence of this passage.

Now what about the next sentence in this argument?

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn't it obvious that students are incapable of running the paper responsibly? **Therefore**, the administration should oversee the student newspaper.”~~

U 1. The administration should oversee the student newspaper.

Stop and Think

The next sentence in this passage is “What do you think?”
Is this sentence important? Should we include it in our list of ideas?

Remember, ideas can be true or false. Questions (at least *normal* questions) aren't really true or false, and so don't usually convey ideas. This means that they aren't usually included in our list. "What do you think?" is a normal question, so we'll just ignore it.

~~"Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper."~~

U 1. The administration should oversee the student newspaper.

Stop and Think

The next sentence in this passage is "Isn't it obvious that students are incapable of running the paper responsibly?"

Is this sentence important? Should we include it in our list of ideas?

It's reasonable to think that we should ignore this sentence, too. After all, we've already seen that normal questions don't usually convey ideas. Thus, the fact that "Isn't it obvious that students are incapable of running the paper responsibly?" is a question gives us some reason to suspect that it won't convey an important idea, and if it doesn't convey an idea then it clearly doesn't convey an *important* idea.

However, not *all* questions are normal questions. Can you see the difference between "What do you think?" and "Isn't it obvious that students are incapable of running the paper responsibly?" Although the first question *is* a normal question and doesn't convey an idea, I'm not so sure about the second.

Statement Questions

Although normal questions don't convey ideas and so won't be included in our list, *sometimes* a question *can* convey an idea, in which case it isn't really a question; instead, it's a coy way of asserting something without coming right out and saying it. You're already familiar with sentences like this. (Remember the last time someone said something to you like "Are you *really* sure you want to wear that sweater with those pants?") We'll call such rhetorical questions "statement questions" to distinguish them from normal questions.

Looking at our argument, we can see that the second sentence, "What do you think?" is a normal question because it really *is* just asking for our opinion. "Isn't it obvious that students are incapable of running the paper responsibly?" on the other hand, isn't really a *question*. It's a statement question, a way of asserting that students *are*, in fact, incapable of running the paper responsibly. Since that idea seems to be relevant to establishing that censorship is wrong, we'll write it down in our list,

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”~~

- U 1. The administration should oversee the student newspaper.
- 2. Students are incapable of running the paper responsibly.

Notice that when we take an idea from a statement question, we include the statement conveyed by the question, rather than the question itself, in our list of ideas.

Identifying the Roles of the Important Ideas

That takes care of all of the ideas in the passage, so we can now determine whether the ideas are premises or subconclusions.

Remember, in order to determine whether an idea is a premise or a subconclusion, we can ask ourselves “Does the argument give us reason to believe this, or does the argument just take it for granted?” If we *aren’t* given reasons to believe an idea, it’s a premise. If we *are* given reasons to believe an idea, it’s a subconclusion.

Stop and Think

Go back and look at the argument for a minute. Is idea 2, the claim that students are incapable of running the paper responsibly, a premise or a subconclusion?

I think that idea 2 is a premise. The passage gives us no reason to believe that students are incapable of running the paper responsibly. (Additionally, if 2 were a subconclusion, it would need to be supported by some other idea, and I don’t see any other ideas that could support 2.)

We’ll show that 2 is a premise by putting a “P” next to it.

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”~~

- U 1. The administration should oversee the student newspaper.
- P 2. Students are incapable of running the paper responsibly.

Identifying the Inferences

Because “Therefore” is a conclusion indicator expression, it tells us that idea 1 is a conclusion from idea 2. In other words, it tells us that idea 2 is being given as a reason to believe idea 1, so we’ll draw an arrow from idea 2 to idea 1, like this:

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? **Therefore**, the administration should oversee the student newspaper.”~~



- U 1. The administration should oversee the student newspaper.
- P 2. Students are incapable of running the paper responsibly.

It would also be a good idea to practice double-checking inferences. (I know that we might not *need* to double-check this inference, but later on in this chapter, we probably *will*. That’s why it’s a good idea to practice now.)

Reading up the arrow (away from the arrow head) with a reason indicator expression, we get “The administration should oversee the student newspaper because students are incapable of running the paper responsibly.”

Reading down the arrow (toward the arrow head) with an conclusion indicator expression, we get “Students are incapable of running the paper responsibly. Therefore the administration should oversee the student newspaper.”

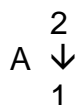
Both of these readings make sense and correspond to the original passage, so we can be confident that we’ve correctly identified the inference in this argument.

Diagramming the Argument

This argument, then, is diagrammed as follows:

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? **Therefore**, the administration should oversee the student newspaper.”~~

- 1. The administration should oversee the student newspaper.
- 2. Students are incapable of running the paper responsibly.

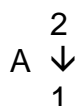


Instead of evaluating this argument, let’s summarize what we’ve learned from it and go directly to analyzing next one.

Summary

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”~~

1. The administration should oversee the student newspaper.
2. Students are incapable of running the paper responsibly.



This argument has taught us:

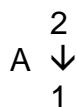
Argument analysis skills, specifically

- to ignore unimportant statements, and
- to rephrase and include statement questions.

Example 2'

Step 2- Analyzing the Argument

If you look back on all of the arguments we’ve diagrammed so far, you’ll see that each has the simplest possible argument structure, specifically:



Each argument we’ve seen has only two important ideas so one has to be the ultimate conclusion and the other has to be the premise. In real life, happily, things can get more complicated and *much* more interesting. Let’s compare Example 2 to a slightly more elaborate argument which we’ll call “Example 2’.”

Example 2	Example 2'
“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student	“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn’t it obvious that students are incapable of running the

newspaper.”	paper responsibly? Therefore, the administration should oversee the student newspaper.”
1. The administration should oversee the student newspaper. 2. Students are incapable of running the paper responsibly. 2 A ↓ 1	

Identifying the Ultimate Conclusion

Stop and Think

What is the ultimate conclusion of the argument in Example 2’?

Since the main point of Example 2’ is the *same* as the main point of Example 2, specifically the idea that the administration should oversee the student newspaper, Examples 2 and 2’ have the same ultimate conclusion and our list of ideas will start out the same way.

Example 2	Example 2’
“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”	“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”
1. The administration should oversee the student newspaper. 2. Students are incapable of running the paper responsibly. 2 A ↓ 1	1. The administration should oversee the student newspaper.

Identifying the Other Important Ideas

The first sentence of Example 2', just like the first sentence of Example 2, is an unimportant statement, so we'll ignore it. The second sentence of Example 2', just like the second sentence of Example 2, is a normal question, so we'll ignore it, too.

Example 2	Example 2'
<p>“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”</p>	<p>“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”</p>
<p>1. The administration should oversee the student newspaper. 2. Students are incapable of running the paper responsibly.</p> <p style="text-align: center;">2 A ↓ 1</p>	<p>1. The administration should oversee the student newspaper.</p>

The important difference between Examples 2 and 2' appears in the third sentence. The third sentence in Example 2' is significantly longer than the third sentence in Example 2, and includes the idea “the last twelve editions were riddled with libelous errors.”

Example 2	Example 2'
<p>“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”</p>	<p>“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”</p>
<p>1. The administration should oversee the student newspaper. 2. Students are incapable of running the paper responsibly.</p>	<p>1. The administration should oversee the student newspaper.</p>

2 A ↓ 1	
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Stop and Think

Would you include the idea “the last twelve editions were riddled with libelous errors” in our list of important ideas for Example 2’?

I think we should include “Students are incapable of running the paper responsibly” in our list of ideas. The reason indicator expression “in view of the fact that” tells me that “the last twelve editions were riddled with libelous errors” is being given as reason to believe something, making it part of the argument.

Example 2	Example 2’
<p>“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”</p>	<p>“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”</p>
<p>1. The administration should oversee the student newspaper. 2. Students are incapable of running the paper responsibly.</p> <p style="text-align: center;"> 2 A ↓ 1 </p>	<p>1. The administration should oversee the student newspaper. 2. The last twelve editions were riddled with libelous errors.</p>

And, just as the statement question “Isn’t it obvious that students are incapable of running the paper responsibly?” conveyed the important idea that students are incapable of running the paper responsibly in Example 2, it conveys the same important idea in Example 2’.

Example 2	Example 2’
<p>“Some people on campus are in favor of an independent student newspaper</p>	<p>“Some people on campus are in favor of an independent student newspaper</p>

<p>whereas other people on campus oppose it. What do you think? Isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper."</p>	<p>whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper."</p>
<p>1. The administration should oversee the student newspaper. 2. Students are incapable of running the paper responsibly.</p> <p style="text-align: center;">2 A ↓ 1</p>	<p>1. The administration should oversee the student newspaper. 2. The last twelve editions were riddled with libelous errors. 3. Students are incapable of running the paper responsibly</p>

Identifying the Roles of the Important Ideas

Unlike Example 2 (or any argument we've seen so far), Example 2' has *three* ideas! This means that we can't just assume that the other idea in our list is a premise, and so identifying the argumentative role of our important ideas will be much more interesting now.

Stop and Think

Take a look at idea 2 in Example 2', the claim that the last twelve editions were riddled with libelous errors.

Is the argument giving us reason to believe it, making it a subconclusion, or are we just supposed to take it for granted, making it a premise?

Suppose we decide that idea 2 is a subconclusion.

~~"Some people on campus are in favor of an independent student newspaper~~
~~whereas other people on campus oppose it. What do you think?~~ In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper."

- U 1. The administration should oversee the student newspaper.
- S 2. The last twelve editions were riddled with libelous errors.
- 3. Students are incapable of running the paper responsibly

This would mean that idea 2 would need to follow from something. The only idea from which it could follow would be idea 3, putting an inference from 3 to 2, like so.

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”~~

- U 1. The administration should oversee the student newspaper.
- ↪ S 2. The last twelve editions were riddled with libelous errors.
- ↪ P 3. Students are incapable of running the paper responsibly.

If we double-check this inference by reading up away from the arrow head with “because” we get “The last twelve editions were riddled with libelous errors because students are incapable of running the paper responsibly.”

This makes sense, but the “because” in that passage would be an *explanation* “because,” accounting for *why* the last twelve editions were defective rather than trying to persuade us *that* they were defective. Furthermore, the passage that we get reading up the arrow doesn’t really seem to correspond to the meaning of original example.

So it doesn’t look like there’s an arrow running from 3 to 2, and if there isn’t arrow running from 3 to 2 then can’t be an arrow to 2 at all. (Remember, an arrow never runs from the ultimate conclusion so we can’t have an arrow running from 1 to 2.)

This means that idea 2 is a premise. The passage doesn’t give us any reason to believe that 2 is true. It just expects us to take its word for it.

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”~~

- U 1. The administration should oversee the student newspaper.
- P 2. The last twelve editions were riddled with libelous errors.
- 3. Students are incapable of running the paper responsibly.

Stop and Think

Now take a look at idea 3 in Example 2’, the claim that students are incapable of running the paper responsibly.

Is the argument giving us reason to believe it, making it a subconclusion, or are we just supposed to take it for granted, making it a premise?

It helps, here, to focus on the inference indicator expression “in view of the fact that.”

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that~~ the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”

- U 1. The administration should oversee the student newspaper.
- P 2. The last twelve editions were riddled with libelous errors.
- 3. Students are incapable of running the paper responsibly.

“In view of the fact that” is a reason indicator expression like “because,” so idea 2, “the last twelve editions were riddled with libelous errors,” is being given as reason to believe something else. What is it being given as a reason to believe? The idea that students are incapable of running the paper responsibly, idea 3.

This makes idea 3 a subconclusion, a claim that's supported by other ideas in the argument even though it isn't the ultimate conclusion. This is the very first subconclusion we've seen! We'll put an “S” next to it.

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that~~ the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”

- U 1. The administration should oversee the student newspaper.
- P 2. The last twelve editions were riddled with libelous errors.
- S 3. Students are incapable of running the paper responsibly.



Identifying the Inferences

The best way to see that idea 3 is a subconclusion is simply to ask ourselves, “Does the argument give us any reason to believe that students are incapable of running the paper responsibly, or are we supposed to take this for granted?” Looking at the passage, we can see that we *are*, in fact, given a reason to believe this, specifically the claim that the last twelve editions of the paper were riddled with libelous errors.

The same point can be reached by utilizing the reason indicator expression “in view of the fact that,” which shows that “the last twelve editions of the paper were riddled with libelous errors” is being given as a reason to think that “students are incapable of running the paper,” is true.

Let's note, at this point, that part of what lead us to recognize 3 as a subconclusion was seeing that 2 is being given as a reason to believe 3. *In other words, in the process of identifying 3 as a subconclusion, we saw that an inference runs from 2 to 3.* We might as well draw in the arrow.

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think?”~~ In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”

- U 1. The administration should oversee the student newspaper.
-  P 2. The last twelve editions were riddled with libelous errors.
-  S 3. Students are incapable of running the paper responsibly.

In practice, then, identifying the argumentative role of an idea, and identifying the inferences, is often done at the same time and so we'll frequently combine these two steps. We will, however, continue to think about them as two separate steps, because they *can* be separated and because sometimes they will be done at different times.

Arrow In and Out Rules

In Chapter 1, we saw some “arrow in and out rules.” In particular, we learned that

- The ultimate conclusion must have at least one arrow pointing *to* it but no arrows pointing *from* it, because it's the main idea that is supposed to be proven by the argument as a whole. It's the cherry on the sundae, so to speak, and once the argument reaches its ultimate conclusion, it stops.
- Premises must have arrows going *from* them but no arrows going *to* them. An arrow going to an idea means that the idea is supported by another but premises are stated without proof; they're where the argument *starts*, and so they have no incoming arrows.

Stop and Think

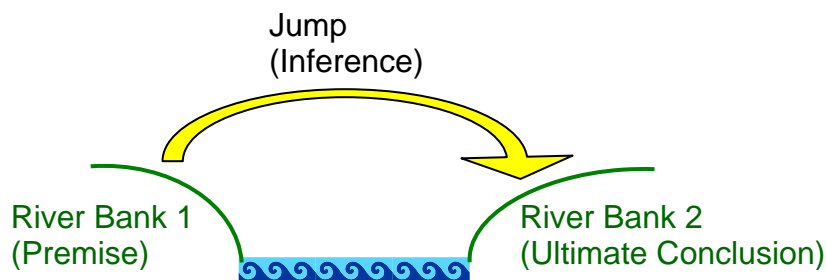
What about subconclusions? What arrow in and out rule should we have for them?

If a subconclusion has at least one arrow pointing *from* it but no arrows pointing *to* it then that subconclusion would be a premise, a place where the reasoning starts. Subconclusions aren't where the reasoning starts, though, so we know that a subconclusion has to have an arrow pointing to it.

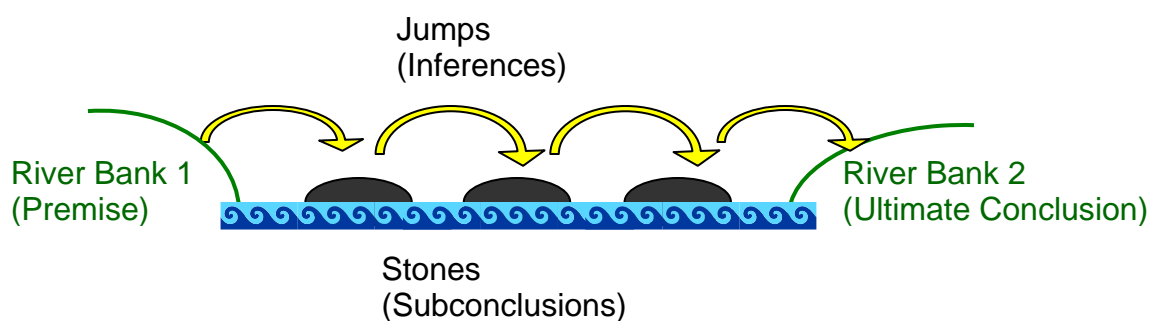
If a subconclusion has at least one arrow pointing *to* it but no arrows pointing *from* it, then the reasoning would just *stop* at the subconclusion. In the argument we're considering, for example, the reasoning would go from 2 to 3 and then halt. This would make the subconclusion another ultimate conclusion. There can only be one ultimate conclusion in each argument, though, so a subconclusion has to have an arrow pointing from it.

It follows, then, that subconclusion must have arrows going *both to and from* it.

We can compare arguments to a path over a river. Sometimes, you might try to hop right across the river with one jump, just like a structurally simple premise / ultimate conclusion argument tries to take you from the premise to the ultimate conclusion with one inference.



Sometimes, however, you might want cross the river with littler steps, hopping from one river bank to a stone in the river, from that stone to another, and so on until you get to the other side. This is what happens when there are subconclusions in an argument. The argument takes you from the premise to a subconclusion, from that subconclusion to another, and so on until you reach the ultimate conclusion.



Premises must have arrows going from them but no arrows going to them because you're assumed to be already *standing* on the river bank from which you start. Subconclusions, on the other hand, must have arrows going *both* to them *and* from them, because you jump *to* the stones in the river and then jump *from* them again. And the ultimate conclusion must have at least one arrow pointing to it but no arrows pointing from it because once you reach the other river bank, you stop.

Thinking about these arrow in and out rules, we can see that idea 2 in our argument is satisfied. It's a premise and it has an arrow going from it. Idea 1, however, is still unsatisfied. It needs an arrow going to it. And idea 3 is unsatisfied because it needs an arrow running from it.

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious~~

that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”

→U 1. The administration should oversee the student newspaper.

←P 2. The last twelve editions were riddled with libelous errors.

↪S 3. Students are incapable of running the paper responsibly.

Everybody’s happy if we draw an arrow running from 3 to 1. This makes sense, too, because the fact that students are incapable of running the paper responsibly (idea 3) is, in fact, given as a reason to believe that the administration should oversee the student newspaper (idea 1).

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”~~

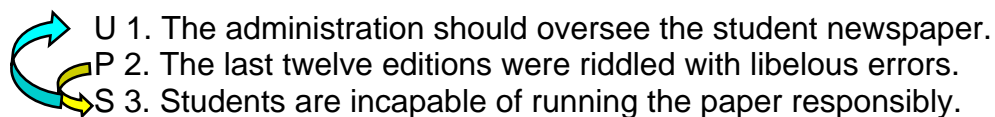
↪U 1. The administration should oversee the student newspaper.
↪P 2. The last twelve editions were riddled with libelous errors.
↪S 3. Students are incapable of running the paper responsibly.

Since the arrows we drew in our list of ideas is the only set of arrows which conforms to our arrow in and out rules, we have pretty good reason to think that we’ve done it correctly. Later on, though, there will be a number of inferences which conform to the “in and out” rules, so it’s a good idea to stay in the habit of double-checking our work by reading up the arrows with “because” or down the arrows with “therefore.”

Reading up, we get “The administration should oversee the student newspaper because the students are incapable of running the paper responsibly. The students are incapable of running the paper responsibly because the last twelve editions were riddled with libelous errors.” (If you want some practice, read down the arrows on your own.)

This makes sense. Moreover, it captures the intent of the passage. Notice how the reason indicator expression “in view of the fact that” gives us the inference from 2 and 3 and how the conclusion indicator expression “therefore” gives us the inference from 2 to 1.

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that (2) the last twelve editions were riddled with libelous errors, (3) isn’t it obvious that students are incapable of running the paper responsibly? Therefore, (1) the administration should oversee the student newspaper.”~~



We can be confident, then, that we've correctly identified the inferences and we may proceed to diagram the argument.

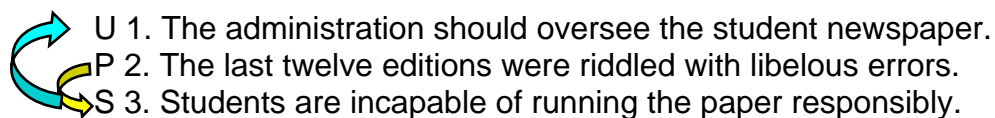
Diagramming the Argument

Stop and Think

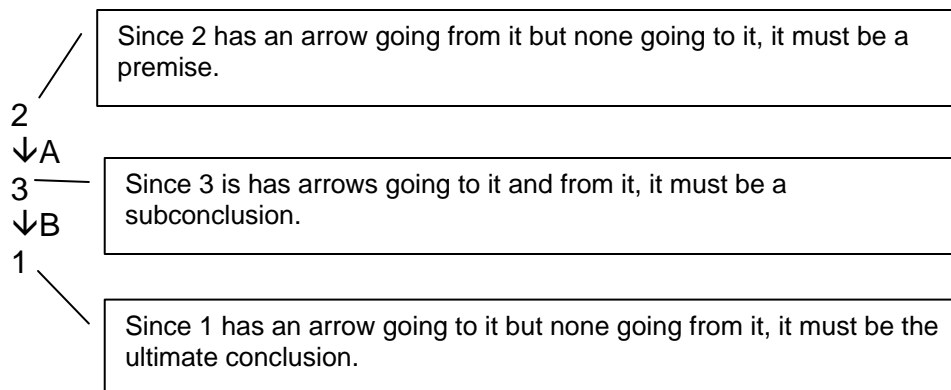
How will this argument be diagrammed?

Just like diagramming premise / ultimate conclusion arguments of the sort we saw in Chapter 1, diagramming arguments with subconclusions is largely a matter of transposition. We put the premises at the top, the ultimate conclusion on the bottom, the subconclusions in the middle, and we draw arrows to represent the inferences, labling them with capital letters for ease of reference latter. This gives us the following diagram.

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”~~



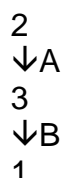
Notice how we can read the argumentative role of the ideas off the diagram itself.



This means that once we have the diagram, we can get rid of the “U”s, “P”s, “S”s, and arrows in our list of ideas.

~~“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”~~

1. The administration should oversee the student newspaper.
2. The last twelve editions were riddled with libelous errors.
3. Students are incapable of running the paper responsibly.



Premise / Subconclusion / Ultimate Conclusion Arguments

See how the idea that was a *premise* in argument 2 is transformed into a *subconclusion* in argument 2’ by being supported by another idea? Argument 2’ is just argument 2 pushed one step back, so to speak.

Example 2	Example 2’
<p>“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student</p>	<p>“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn’t it obvious that students are incapable of running the</p>

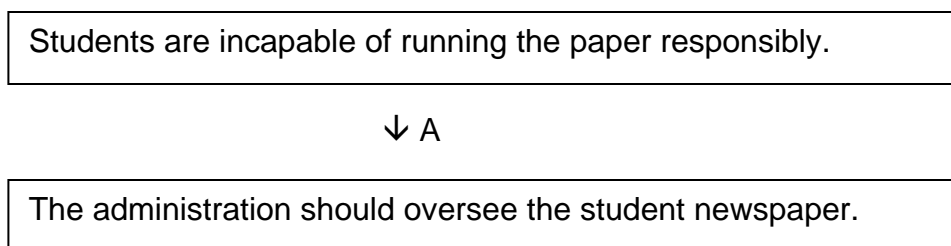
newspaper.”	paper responsibly? Therefore, the administration should oversee the student newspaper.”
1. The administration should oversee the student newspaper. 2. Students are incapable of running the paper responsibly. 2 A ↓ 1	1. The administration should oversee the student newspaper. 2. The last twelve editions were riddled with libelous errors. 3. Students are incapable of running the paper responsibly 2 ↓A 3 ↓B 1

This is our first argument with a subconclusion! We’ll call arguments that run straight down a line from one premise, through at least one subconclusion, to the ultimate conclusion “premise / subconclusion / ultimate conclusion” arguments, or P / S / U arguments.

You can, if you want, think of a premise / subconclusion / ultimate conclusion argument as two or more premise / ultimate conclusion arguments “snapped together.” Take a look:

If we use the ideas themselves, instead of the numbers of the ideas, we can diagram argument 2 as follows:

(2) “Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? Isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”



Now let’s consider the following argument, which we can call ‘2a.’ Again using the ideas themselves, instead of the numbers of the ideas, we can diagram this argument like so:

(2a) “In view of the fact that the last twelve editions were riddled with libelous errors, isn’t it obvious that students are incapable of running the paper responsibly?”

The last twelve editions were riddled with libelous errors.

↓ A

Students are incapable of running the paper responsibly.

Can you see how argument 2' is nothing more than arguments 2' and 2a snapped together?

(2') “Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn’t it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”

The last twelve editions were riddled with libelous errors.

↓ A

Students are incapable of running the paper responsibly.

↓ A

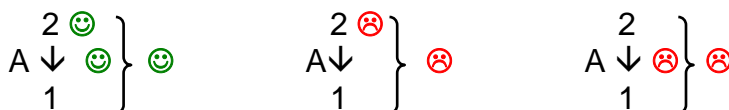
The administration should oversee the student newspaper.

As you take a look at other arguments with subconclusions, see if you can spot how they, too, are made of two or more smaller arguments snapped together.

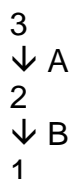
Step 3- Evaluating the Argument

Once we have the diagram of an argument in hand, we can isolate specific parts of the argument to assess.

As we saw in Chapter 1, when we have a premise / ultimate conclusion argument we just need to evaluate the premise and the inference. If both are good then the argument is good, and if either one is bad then so is the argument.



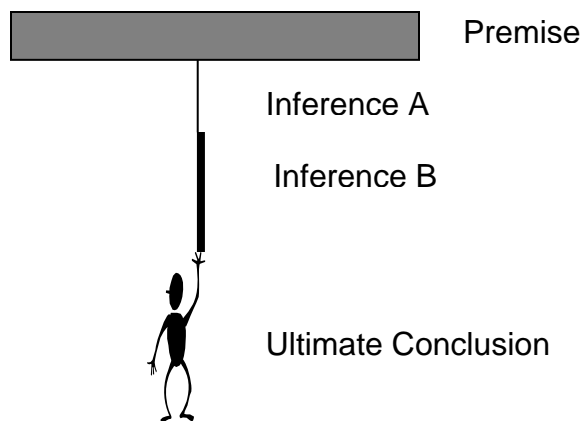
What about a premise / subconclusion / ultimate conclusion argument? What do we need to assess in order to evaluate *them*? What makes an argument like this good or bad?



Stop and Think

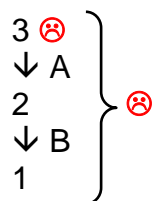
Does a bad premise make a P / S / U argument bad?

We may continue to think of an argument like a fellow suspended by a rope from a beam, only now the rope will have segments which could differ in strength. Each inference will correspond to a different segment of the rope, so the entire argument looks like this:



And once again, instead of thinking that an argument is good if it supports the conclusion and bad if it doesn't, we can think that an argument is good if it holds the fellow up and bad if it lets the fellow fall.

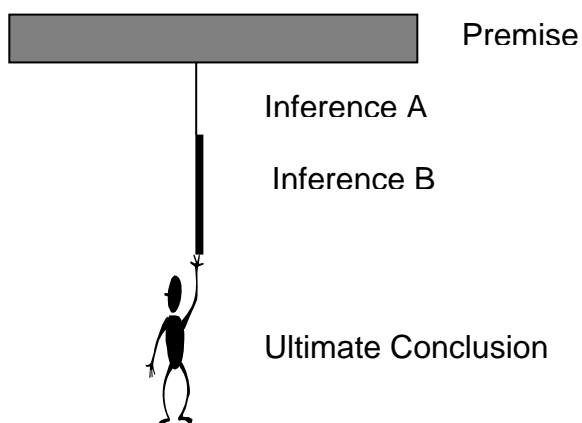
Obviously, if the beam is rotten then the fellow's in danger of dropping no matter *how* strong the rope is. Accordingly, if the premise is bad then the argument is too, no matter *how* good the inferences are. A bad premise does, indeed make an entire P/S/U argument bad.



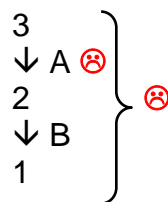
Stop and Think

What about inference A? Does a bad first inference make a P / S / U argument bad? And what about inference B? Does a bad second inference make a P / S / U argument bad?

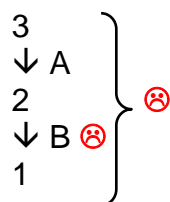
Consider the hanging man again.



If the first segment of rope is weak then the fellow will fall no matter *how* strong the beam or the rest of the rope is. Accordingly, if the first inference is bad then the argument is too, no matter *how* good the premise or the other inferences are. A bad first inference does, indeed make an entire P/S/U argument bad.



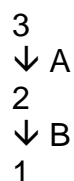
Similarly, if the second segment of rope is weak then the fellow will fall no matter *how* strong the beam or the rest of the rope is. Accordingly, if the second inference is bad then the argument is too, no matter *how* good the premise or the other inferences are. A bad second inference also makes an entire P/S/U argument bad.



At the end of the day, we've seen that evaluating a premise / subconclusion / ultimate conclusion argument is exactly like evaluating a premise / ultimate conclusion argument of the type we saw in Chapter 1! (Nice, huh?) Specifically, a good premise / subconclusion / conclusion argument must have good premises and good inferences all the way down; even one bad premise or even one bad inference will make the argument bad as well.

We can understand why this is so without using the Hanging Man Model, too.

Remembering that a good argument establishes the truth of its ultimate conclusion and gives its audience reason to think that the ultimate conclusion is true, let's take a look at the diagram of a standard premise / subconclusion / conclusion argument:



Suppose for a moment that idea 3, the premise, is bad. It doesn't matter what idea 3 actually *is*; just suppose for a moment that *whatever* it is, it's something that almost everyone would realize is false, something like "The earth is flat," or "When people say that your hair looks fine, they always mean it."

Since 3 is false, we have no reason to believe 2 regardless of *how* strong inference A is. Inference A is supposed to transfer belief in 3 to belief in 2, after all, and in this case there is no belief in 3 to transfer. But since we don't have any reason to believe 2, we don't have any reason to believe 1 regardless of how strong inference B is, and for exactly the same reason. Inference B is designed to transfer belief in 2 to belief in 1, but there isn't any belief in 2 to pass on. In short, if the premise is bad then we don't have reason to believe the ultimate conclusion. And since a good argument must give us reason to think that the ultimate conclusion is true, if the premise in a premise / subconclusion / conclusion argument is bad, then so is the argument as a whole.

Now let's suppose that idea 3 is fine but that inference A is bad. This means that a perfectly rational person who believed 3 would have no inclination to believe 2 on that basis. Consequently, even though idea 3 is good, we have no reason to think that 2 is true. The truth of 3 just isn't the sort of thing that can establish the truth of 2. And not having any reason to think that 2 is true, we have no reason to believe in 1 no matter

how strong inference B is. As we've just seen, inference B is supposed to base belief in 1 on previous belief in 2, but in this case there *is* no previous belief in 2. If inference A is bad, then, we don't have reason to believe the ultimate conclusion.

Finally, let's suppose that idea 3 and inference A are both good but that inference B is bad. Since B is the connection between ideas 2 and 1, this means that no matter how well-supported idea 2 is, it gives us no reason to believe that idea 1 is true. Since inference B is bad, the truth of 2 is irrelevant to the truth of 1 and we don't have any reason to believe the ultimate conclusion. In short, if *either* inference A *or* inference B is bad then the argument is bad as well.

That's why if even one inference in a premise / subconclusion / conclusion argument is bad, then so is the argument as a whole.

Stop and Think

Have you noticed what part of a P / S / U argument we *don't* evaluate? What part is it, and why don't we evaluate it?

Although we evaluate premises and inferences, we shouldn't assess a subconclusion as part of our final evaluation of an argument because an evaluation of a subconclusion will be either unnecessary or irrelevant to the eventual assessment of the argument as a whole.

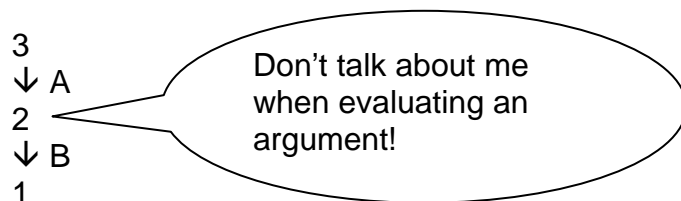
To see why this is so, note that one of the following two circumstances has to be the case:

- 1) both the premise and the inference above a subconclusion will be good, or
- 2) either the premise or the inference above the subconclusion will be bad.

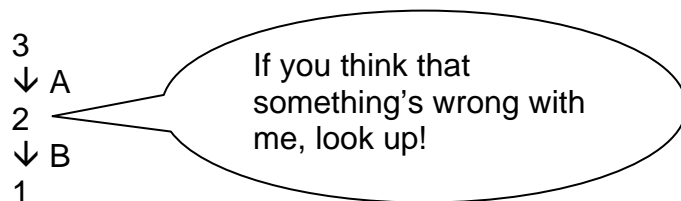
On the one hand, suppose that both the premise and the inference above the subconclusion are good. In this case, you'd believe the premise, and, thanks to the inference, you'd believe the subconclusion too. This means that an *independent* assessment of the subconclusion is unnecessary.

On the other hand, suppose that the premise or the inference is bad. In this case, the argument will give you no reason to believe the subconclusion. It doesn't matter if you have *other* reasons to believe the subconclusion, reasons having nothing to do with the argument itself, because the argument is supposed to *convince* its audience that the subconclusion is true. If someone lacking your special knowledge about the subconclusion read the argument, *she* wouldn't believe the subconclusion; and not believing the subconclusion she wouldn't believe the ultimate conclusion either. Because an argument is supposed to convince its audience that the ultimate conclusion is true without depending upon extraneous knowledge that the audience might have, an independent assessment of the subconclusion is irrelevant if either the premise or the inference above it is bad.

Consequently, an independent assessment of a subconclusion is either unnecessary (if the reasoning for the subconclusion is good) or irrelevant (if the reasoning supporting the subconclusion is bad). Under no circumstances, then, is our final evaluation of an argument furthered by an appraisal of a subconclusion in the argument.



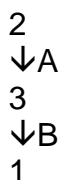
We *may*, however, look at subconclusions in the *process* of evaluating an argument. In particular, if an argument has a subconclusion that we suspect is false, we have good reason to think that the part of the argument *supporting* that subconclusion is bad. Can you see why? It's because if the argument supporting the subconclusion were *good* then the subconclusion would have to be true. A suspicious-looking subconclusion is a clue that something is wrong with the premises or inferences above that subconclusion in the diagram, so we should snoop around up there to find the culprits.



Now that we know how to evaluate P / S / U arguments, let's take a look at the argument in Example 2'.

"Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper."

1. The administration should oversee the student newspaper.
2. The last twelve editions were riddled with libelous errors.
3. Students are incapable of running the paper responsibly.



Is premise 2 true and acceptable to the argument's audience? That's an interesting question. After all, how are we to know if it's true? Because I believe that outright *lying* isn't a particularly common problem in arguments, I tend to take straightforward factual claims like this at face-value, particularly if they're capable of being easily verified. (People are less likely to fabricate things if they know there's a good chance of being found out.) Premise 2, then, deserves a smile:

"Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper."

1. The administration should oversee the student newspaper.
2. The last twelve editions were riddled with libelous errors.
3. Students are incapable of running the paper responsibly.

2 ☺
↓A
3
↓B
1

Now what about the inferences?

Applying the Bob Method to inference A, we think to ourselves, "Bob is a perfectly gullible but perfectly rational person who believes idea 2, that the last twelve editions of the student paper were riddled with libelous errors. In light of this belief, how likely is Bob to believe idea 3, that the students are incapable of running the paper responsibly?"

I don't think that Bob is *compelled* to believe idea 3. Bob could think that the students were just being lazy, or maybe even loaded their papers with errors on *purpose*, to make a point.

Nevertheless, Bob might have *some* inclination to believe 3 on the basis of 2, since twelve editions are quite a few issues of a paper to screw up.

I'll say that inference A is mediocre.

"Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper."

1. The administration should oversee the student newspaper.
2. The last twelve editions were riddled with libelous errors.
3. Students are incapable of running the paper responsibly.

2 ☺
↓A ☺
3
↓B
1

The last thing we need to look at is inference B. If Bob believes that students are incapable of running the paper responsibly, idea 3, how likely will he be to believe that the administration should oversee the student newspaper, idea 1?

Again, I think this inference is mediocre. On the basis of believing 3, Bob would probably believe that *someone* should oversee the student newspaper, but it needn't be the administration. Perhaps a faculty member could do it. I'll give this inference a straight face.

“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”

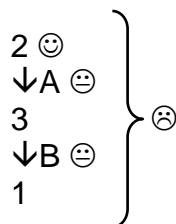
1. The administration should oversee the student newspaper.
2. The last twelve editions were riddled with libelous errors.
3. Students are incapable of running the paper responsibly.

2 ☺
↓A ☺
3
↓B ☺
1

Given that I think that the premise was good, but that I think that both of the inferences are mediocre, I think that the argument as a whole is mediocre too. (Just like a fellow hanging from a beam is no more secure than the weakest element of his support structure, a P / S / U argument is no better than its weakest part.)

“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”

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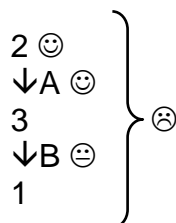
At this point, it's not unusual to be concerned.

In particular, a number of my students sometimes disagree with my evaluation of an argument, or, if they agree with my evaluation, they're bothered by the fact that they wouldn't, or might not, have come up with that evaluation *themselves*.

In this example, for instance, maybe you think that the libelous nature of the last twelve editions of the school paper *does* show that the students are incapable of being in charge. Maybe you disagree with my assessment of inference A. Maybe you think it's good.

“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper.”

1. The administration should oversee the student newspaper.
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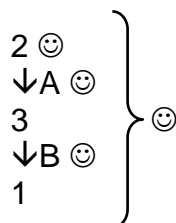


And although you might agree with my observation that the *administration* doesn't to be the body that oversees the student paper, maybe this wouldn't have occurred to you on your own. Maybe you would have decided that inference B is just fine, too, and concluded that the argument was fine as a whole.

“Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the

fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper."

1. The administration should oversee the student newspaper.
2. The last twelve editions were riddled with libelous errors.
3. Students are incapable of running the paper responsibly.



How worried should you be when your evaluation of an argument disagrees with mine, or when you simply wouldn't have seen a problem until I, or someone else, pointed it out to you?

You don't need to be very worried at all.

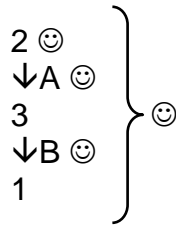
Analyzing and evaluating arguments are very different activities. Unless an argument is very complex or poorly written, its analysis is fairly objective. It might be *difficult* to arrive at the correct diagram, but there *is* a correct diagram. To this extent, diagramming arguments is a skill that can be learned and eventually mastered. But evaluating an argument is often at least as much of an art as a skill. Certain premises are obviously false, or question-begging. Certain inferences are obviously weak. But sometimes reasonable people might disagree about a particular premise or inference. Sometimes a good objection might occur to one person but not another. (That happens to me in class all the time, by the way. I write an argument which I think is good until a student points out a problem with the argument that I had never seen before.) That shouldn't bother us. We should simply evaluate an argument as best we can and keep our minds open to other points of view.

Summary

Here's how we analyzed and evaluated this argument:

"Some people on campus are in favor of an independent student newspaper whereas other people on campus oppose it. What do you think? In view of the fact that the last twelve editions were riddled with libelous errors, isn't it obvious that students are incapable of running the paper responsibly? Therefore, the administration should oversee the student newspaper."

1. The administration should oversee the student newspaper.
2. The last twelve editions were riddled with libelous errors.
3. Students are incapable of running the paper responsibly.



This example has taught us

Argument analysis skills, specifically

- how to recognize subconclusions
- how to diagram arguments with subconclusions
- that, in practice, identifying the argumentative role of an idea, and identifying the inferences, is often done at the same time.

Argument evaluation skills, specifically

- how to evaluate arguments with subconclusions
- that we never evaluate a subconclusion as part of our final evaluation of an argument but that if we find ourselves disagreeing with a subconclusion, we should assess the inferences and premises supporting it
- that analyzing an argument is a matter of skill and that the analysis of an argument is often an objective matter, but that there is an element of art to evaluating an argument and that reasonable people can disagree about an argument's evaluation

Example 3

Step 1 - Recognizing an Argument

Consider the following passage.

“Censorship is the practice of suppressing ideas and images which are considered to be obscene, dangerous, offensive or otherwise objectionable.”

Stop and Think

Does this passage contain an argument, an explanation of why, or neither?

It doesn't seem to me that this passage is trying to convince us that something is true, so I'll say that this passage doesn't contain an argument. (The absence of inference indicator expressions might also be clue to the fact that there's no argument here, but later on we'll see arguments that don't contain inference indicator expressions, so we shouldn't rely too much on this.)

I also don't see how this passage is trying to explain why something is the way it is, so I'll say that this passage doesn't contain an explanation of why either.

Of course, the passage certainly looks like it's explaining *something*. In particular, it looks like this passage explaining *what censorship is*. We could call it an "explanations of what," if we wanted to. As I mentioned before, there are many different kinds of explanation. Some passages explain how something works, and may be called "explanations of how," for instance. Since explanations of why are the type of explanations most likely to be confused with arguments, though, they're the only type of explanation with which we'll concern ourselves.

Summary

"Censorship is the practice of suppressing ideas and images which are considered to be obscene, dangerous, offensive or otherwise objectionable."

This little passage didn't contain an argument. It did, however, show us that

- that some passages aren't arguments or explanations of why
- that some explanations aren't explanations of why

Example 4

Step 1 - Recognizing an Argument

Take a look at this passage.

"Have you ever wondered what leads George to level his untiring crusade against censorship? George is opposed to censorship because all of his friends are against it."

Stop and Think

Does this passage contain an argument, an explanation of why, or neither?

The first thing I notice is that this passage contains the reason indicator expression "because."

"Have you ever wondered what leads George to level his untiring crusade against censorship? George is opposed to censorship **because** all of his friends are against it."

If this passage were an argument, this "because" would lead us to believe that "George is opposed to censorship" is the ultimate conclusion, supported by the claim that all of George's friends are opposed to it. But is this passage trying to convince us that George is opposed to censorship? I don't think so.

Instead, this passage assumes we already know that George is opposed to censorship and is simply trying to account for *why* this is the case. This makes Example 4 an explanation of why, not an argument.

Summary

“Have you ever wondered what leads George to level his untiring crusade against censorship? George is opposed to censorship because all of his friends are against it.”

This passage didn’t contain an argument, but gave us more practice distinguishing arguments from explanations of why.

Example 5

Step 1 - Recognizing an Argument

Let’s take a look at another passage.

“Listen up! Do your best to fight censorship because all ideas deserve to be heard.”

Stop and Think

Does this passage contain an argument, an explanation of why, or neither?

It seems to me that this passage *is* trying to convince us of something, making this passage an argument.

There is something a little different about this argument, though, something that might make it more difficult for us to recognize this as an argument. We’ll see what that is shortly.

Step 2- Analyzing the Argument

Identifying the Ultimate Conclusion

As usual, we’ll start our analysis of this argument by identifying it’s ultimate conclusion.

Stop and Think

What do you think the ultimate conclusion is?

“Listen up! Do your best to fight censorship because all ideas deserve to be heard.”

I’m going to say that the ultimate conclusion is “Do your best to fight censorship,” since this passage is trying to convince us that we should do our best to fight censorship. (The “because” can help us to see this.)

“Listen up! Do your best to fight censorship because all ideas deserve to be heard.”

U 1. You should do your best to fight censorship.

This *might* strike you as strange. After all, “Do your best to fight censorship” is a *command* sentence, and we learned in Chapter 1 that normal commands, like normal questions, don’t really convey ideas at all since they can’t be true or false. What’s up?

Statement Commands

Exactly like questions, command sentences *usually* don’t convey ideas, but they *sometimes* do. Sometimes a command is a way of conveying the idea that someone *should* do a particular thing, or that a particular course of action is the *right* one, in which case you have what we’ll call a “statement command,” instead of a normal command which just instructs us to do something.

When I’m faced with a statement command, I’ll rephrase it as a “should” statement when I include it in our list of ideas. So, since “Do your best to fight censorship,” is statement command that conveys the idea that we should do our best to fight censorship, that’s what I’ve recorded as our ultimate conclusion.

Identifying the Other Important Ideas

Stop and Think

Now that we have our ultimate conclusion, what other ideas should we include in our list? Should we include “Listen up?” What about “All ideas deserve to be heard”?

It seems to me that “Listen up!” is a normal command that doesn’t convey an idea, so let’s ignore it. “All ideas to deserve to be heard,” however, is definitely important. The reason indicator expression “because” can help us to see that. It tells us that “all ideas deserve to be heard” will be given as a reason to believe something. It needs to be included in our list of important ideas.


“Listen up! Do your best to fight censorship because all ideas deserve to be heard.”

- U 1. You should do your best to fight censorship.
- 2. All ideas deserve to be heard.

Identifying the Roles, Identifying the Inferences, and Diagramming


And just as the reason indicator expression “because” tells us that “all ideas deserve to be heard” is being given as a reason to believe something, it can tell us that it’s being given as a reason to believe “you should do your best to fight censorship,” thereby establishing the following inference:

“Listen up! Do your best to fight censorship **because** all ideas deserve to be heard.”

- 
- U 1. You should do your best to fight censorship.
 - 2. All ideas deserve to be heard.


We can see, in turn, that idea 2 must be a premise because there’s no other idea to support it. The argument isn’t giving us any reason to believe that all ideas deserve to be heard but is instead taking that idea for granted.

“Listen up! Do your best to fight censorship **because** all ideas deserve to be heard.”

- 
- U 1. You should do your best to fight censorship.
 - P 2. All ideas deserve to be heard.

The entire argument, therefore, will be diagrammed like this:

“Listen up! Do your best to fight censorship because all ideas deserve to be heard.”

- 
- U 1. You should do your best to fight censorship.
 - P 2. All ideas deserve to be heard.

2
↓A
1

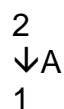
(Notice how many steps we can combine, once we become comfortable with the process. Here, we’ve identified the argumentative role, identified the inference, and diagrammed the argument in one fell swoop!)

Instead of evaluating this argument, let’s summarize what we’ve learned and go on to analyzing next one.

Summary

“Listen up! Do your best to fight censorship because all ideas deserve to be heard.”

1. You should do your best to fight censorship.
2. All ideas deserve to be heard.



Argument analysis skills, specifically

- to include statement commands, rephrasing them as “should” statements.

Example 5'

Step 2- Analyzing the Argument

Let's compare Example 5 to a longer argument that we'll call “5'.”

Example 5	Example 5'
“Listen up! Do your best to fight censorship because all ideas deserve to be heard.”	“Listen up! Do you best to fight censorship because all ideas deserve to be heard. And given that you should do you best to fight censorship, you should stand against the administration's attempts to control the student newspaper.”
1. You should do your best to fight censorship. 2. All ideas deserve to be heard. 2 ↓A 1	

Stop and Think

Is the ultimate conclusion of the argument in 5' the same as the ultimate conclusion in of the argument in 5?

In fact, the ultimate conclusion of the argument in 5' isn't the same as the ultimate conclusion of the argument in 5. “You should do your best to fight censorship” plays a different role in argument 5'. Let's see what that role is.

See how the idea that you should do your best to fight censorship, the conclusion of 5', shows up twice in Example 5'? It first appears as the statement command that was in Example 5, and it's later stated explicitly.

Example 5	Example 5'
"Listen up! Do your best to fight censorship because all ideas deserve to be heard."	"Listen up! <u>Do you best to fight censorship</u> because all ideas deserve to be heard. And given that <u>you should do you best to fight censorship</u> , you should stand against the administration's attempts to control the student newspaper."
1. You should do your best to fight censorship. 2. All ideas deserve to be heard. 2 ↓A 1	

Its first appearance, in "Do you best to fight censorship because all ideas deserve to be heard," shows us that "You should do your best to fight censorship" *follows from* "All ideas deserve to be heard." (We can tell this by the "because.")

Its second appearance, in "And given that you should do you best to fight censorship, you should stand against the administration's attempts to control the student newspaper," show us that "You should do you best to fight censorship" is being *given as a reason for* "You should stand against the administration's attempts to control the student newspaper." (We can tell this by the "given that.")

Example 5	Example 5'
"Listen up! Do your best to fight censorship because all ideas deserve to be heard."	"Listen up! <u>Do you best to fight censorship</u> because all ideas deserve to be heard. And given that <u>you should do you best to fight censorship</u> , you should stand against the administration's attempts to control the student newspaper."
1. You should do your best to fight censorship. 2. All ideas deserve to be heard. 2 ↓A 1	

This means that “You should do your best to fight censorship” is a *subconclusion* in Example 5’, stemming from the premise “All ideas deserve to be heard,” and leading to the ultimate conclusion “You should stand against the administration’s attempts to control the student newspaper.”

Example 5	Example 5’
“Listen up! Do your best to fight censorship because all ideas deserve to be heard.”	“Listen up! Do you best to fight censorship because all ideas deserve to be heard. And given that you should do you best to fight censorship, you should stand against the administration’s attempts to control the student newspaper.”
1. You should do your best to fight censorship. 2. All ideas deserve to be heard. 2 A ↓ 1	1. You should stand against the administration’s attempts to control the student newspaper. 2. You should do your best to fight censorship. 3. All ideas deserve to be heard. 3 A ↓ 2 B ↓ 1

See how happy everyone is? The ultimate conclusion has an arrow going to it but not from it. The premise has an arrow going from it but not to it. And the subconclusion has an arrow going each direction.

Reading up the arrows, we get “We should stand against the administration’s attempts to control the student newspaper because we should do our best to fight censorship. We should do our best to fight censorship because all ideas to deserve to be heard.” (If you want some practice, read down the arrows with “therefore” on your own.) Since this makes sense and corresponds to the meaning of the passage, we can be reasonably sure we’ve done it right.

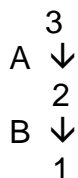
(Notice that in Example 2’, we “grew” a P / S / U argument from a P / U argument by giving a reason for the premise in Example 2, thereby transforming the premise into a subconclusion. In this example, we “grew” a P / S / U argument from P / U argument by reasoning from the ultimate conclusion in Example 5’.)

Step 3- Evaluating the Argument

Now, let’s evaluate this argument. We’ll start with the premise.

“Listen up! Do you best to fight censorship because all ideas deserve to be heard. And given that you should do you best to fight censorship, you should stand against the administration’s attempts to control the student newspaper.”

1. You should stand against the administration’s attempts to control the student newspaper.
2. You should do your best to fight censorship.
3. All ideas deserve to be heard.



Stop and Think

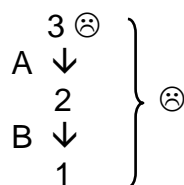
Is premise 3, the idea that all ideas deserve to be heard, true and acceptable to the argument’s audience?

Do all ideas deserve to be heard? Opinions on this issue are divided. Some people think that even outrageous and insulting claims should be given a forum because the preservation of free-speech is a greater good than the avoidance of momentary discomfort or offense. Other people believe that certain assertions, such as claims of racial superiority or the denial of the Holocaust, are inappropriately legitimized by debate. Such notions, many people think, aren’t worthy of discussion.

It’s not unusual for premises to be somewhat controversial, particularly if the argument is at *all* interesting. A good argument is convincing to as many people as possible, and so good premises must be palatable to many people as well. Regardless of whether idea 3 is true, I recognize that a lot of intelligent people disagree with me about this and consequently I think that 3 isn’t the best premise in the world. It would have made a better subconclusion and so I’ll give it a frowning face, which makes the entire argument bad as well.

“Listen up! Do you best to fight censorship because all ideas deserve to be heard. And given that you should do you best to fight censorship, you should stand against the administration’s attempts to control the student newspaper.”

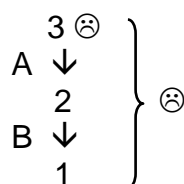
1. You should stand against the administration’s attempts to control the student newspaper.
2. You should do your best to fight censorship.
3. All ideas deserve to be heard.



Summary

“Listen up! Do you best to fight censorship because all ideas deserve to be heard. And given that you should do you best to fight censorship, you should stand against the administration’s attempts to control the student newspaper.”

1. You should stand against the administration’s attempts to control the student newspaper.
2. You should do your best to fight censorship.
3. All ideas deserve to be heard.



No new skills were introduced in this example. This passage gave us more practice analyzing and evaluating premise / subconclusion / ultimate conclusion arguments.

Example 6

Step 1 - Recognizing an Argument

Let’s take a look at this passage.

“The Motion Picture Production Code of 1930, also known as ‘the Hays Code,’ was a self-regulatory measure on the part of the motion picture industry designed to soften growing public criticism of sexually explicit films and to avoid governmental censorship.”

Stop and Think

Does this passage contain an argument, an explanation of why, or neither?

I don’t see that this passage is trying to convince us of anything, so I don’t think it contains an argument. I also don’t see that this passage is trying to account for why something it is the way it is, so I don’t think it’s an explanation of why.

This passage contains neither an argument nor an explanation of why. It confines itself to explaining what the Motion Picture Production Code was. (Remember, explanations of what aren't explanations of why.)

Summary

“The Motion Picture Production Code of 1930, also known as ‘the Hays Code,’ was a self-regulatory measure on the part of the motion picture industry designed to soften growing public criticism of sexually explicit films and to avoid governmental censorship.”

This passage was an example of something that's neither an argument nor an explanation of why.

Example 7

Step 1 - Recognizing an Argument

What do you think about the following passage?

“I was raised in a household that valued free-speech above all else. Both of my parents defended people's rights to hold and express their own opinions, whatever those opinions may be. That's why I believe that censorship is wrong.”

Stop and Think

Does this passage contain an argument, an explanation of why, or neither?

The first thing I notice is the inference indicator expression “that's why.” (Hopefully, inference indicator expressions are starting to jump out at you.)

“I was raised in a household that valued free-speech above all else. Both of my parents defended people's rights to hold and express their own opinions, whatever those opinions may be. **That's why** I believe that censorship is wrong.”

This leads me to believe that the passage contains either an argument or an explanation because inference indicator expressions can appear in both.

In fact, this passage contains an explanation of why and not an argument. To see this, notice that if this passage contained an argument, the reason indicator expression “that's why” would seem to peg “I believe that censorship is wrong,” as the ultimate conclusion. But is this passage trying to convince us that the author disapproves of censorship? I don't think so.

When you think about it, “I believe that censorship is wrong,” is a strange thing to argue for. Usually, you would let me know that you have a certain belief simply by *telling me*

that you do. If you believe that Abraham Lincoln was a Martian, for instance, you'd say "I believe that Abraham Lincoln was a Martian." And - more to the point here - you'd probably be at a loss about what to do if telling me weren't enough, if I refused to accept that you had this belief even though you claimed to. Simply *repeating* that you believe that Lincoln was a Martian wouldn't do because I'd have already failed to take your word on the matter!

In order to avoid chronic skepticism about what our associates' think, we tend to take people's reports of their own beliefs at face value. And this means that assertions of belief (like "I believe that censorship is wrong," and "I believe that Abraham Lincoln was a Martian"), when interpreted literally, are very seldom *argued for*.

But suppose that instead of asking you prove to me *that* you believe that Abraham Lincoln was a Martian, I inquire as to *why* you believe this. That's probably a question you could answer without difficulty. Maybe you have this belief because you learned it from a friend, saw it on TV, or read it on the internet. Any of these responses would account for why you believe what you do, although they wouldn't convince me *that* you believe it or that your belief is *true*. In short, assertions of belief, when interpreted literally, lend themselves to being *explained*, not *argued for*.

Does this passage confine itself to explaining *why* the author believes that censorship is wrong, without attempting to convince us *that* she has this opinion or that her opinion is *true*? Yes. The passage takes for granted that the author disapproves of censorship and it cites her upbringing to account for how she acquired the belief but not to convince us *that* she disapproves of censorship or that her opinion is *correct*. (How could the fact that the author was raised in certain kind of household possibly lead us to conclude that censorship is wrong?) Example 7, then, is an explanation, not an argument.

Summary

"I was raised in a household that valued free-speech above all else. Both of my parents defended people's rights to hold and express their own opinions, whatever those opinions may be. That's why I believe that censorship is wrong."

This passage has given us

Argument recognition skills, specifically

- that literal assertions of belief are usually the subjects of explanation, not the conclusion of arguments.

Example 8

Step 1 - Recognizing an Argument

Consider the following passage:

“Anyone would be crazy to think that science can advance without the free dissemination of ideas. After all, the practice of science requires scientists to share their theories and experiments with each other. That’s why I believe that censorship is wrong.”

Stop and Think

Does this passage contain an argument, an explanation of why, or neither?

Since this passage contains two inference indicator expressions, “after all,” and “that’s why,” I think that this passage contains either an argument or an explanation of why.

“Anyone would be crazy to think that science can advance without the free dissemination of ideas. **After all**, the practice of science requires scientists to share their theories and experiments with each other. **That’s why** I believe that censorship is wrong.”

But which is it, an argument or an explanation of why? Like Passage 7, this passage appears to give reasons for the author’s belief, and, as we’ve just seen, belief is usually the subject of explanation, not argument.

But look a little closer. Does this passage really restrict itself to explaining why the author is opposed to censorship, without trying to get us to share that opinion? I don’t think so. I think this passage is an argument, not an explanation of why. To see this better, let’s compare these two passages side by side.

Passage 7	Passage 8
“I was raised in a household that valued free-speech above all else. Both of my parents defended people’s rights to hold and express their own opinions, whatever those opinions may be. That’s why I believe that censorship is wrong. ”	“Anyone would be crazy to think that science can advance without the free dissemination of ideas. After all, the practice of science requires scientists to share their theories and experiments with each other. That’s why I believe that censorship is wrong. ”

Can you see the difference? Unlike Passage 7, Passage 8 doesn’t confine itself to explaining *why* the author believes that censorship is wrong; it also attempts to convince us that the author’s opinion is *true*. That’s what makes it an argument. Here, the notion that scientific advancement requires unrestricted communication is given *both* as the reason why the author believes that censorship is wrong *and* as a consideration to convince *us* that censorship is wrong. In cases like this, the assertion of belief shouldn’t be taken literally. Instead, it should be read as an assertion of the *truth* of that belief, even if the author attempts to distance himself from the claim that his belief is true.

It’s important to bear this in mind because some people are their own worst enemies in this respect. They are so reluctant to risk being wrong, or appearing opinionated, or

disagreeing with anyone, that no sooner do they assert something than they take it back by saying that it's just their belief, that it could be wrong, that nobody should take it seriously, and that, now that they think about it, they don't take it very seriously either. Such people tend to preface everything with "I think," "I believe," "it seems to me," or something like that, but they *may*, nonetheless, be advancing an argument.

When it looks to us as though a passage is actually giving us reasons to think the belief that the author has is *true*, we should ignore the "I believe" business and interpret the passage as an argument for the truth of the belief. Passage 8, for instance, is actually an argument for the idea that censorship is wrong.

"Anyone would be crazy to think that science can advance without the free dissemination of ideas. After all, the practice of science requires scientists to share their theories and experiments with each other. That's why I believe that censorship is wrong."

1. Censorship is wrong.

Masking statements

As we've just seen, Passage 8 is an argument for the idea that censorship is wrong, even though the author never comes right out and says that censorship is wrong. The closest she comes is saying that she *believes* that censorship is wrong.

In deciding that "censorship is wrong," is the ultimate conclusion of this argument, we took the idea that sort of "hid behind" the sentence "I believe that censorship is wrong." We'll record that in our list of ideas.

We'll call sentences like this argument's use of "I believe that censorship is wrong," "masking statements," because the ideas that they *convey* aren't the ideas that they actually *state* but are instead some other ideas for which they serve as masks.

We'll call statements that convey the very same idea that they explicitly state "normal statements."

Step 2- Analyzing the Argument

Identifying the Other Important Ideas

We identified the ultimate conclusion in the process of learning about masking statements. Now let's finish compiling our list of important ideas.

Stop and Think

What other ideas are important in this passage?

What about the first sentence, “Anyone would be crazy to think that science can advance without the free dissemination of ideas”? Do you think that this conveys an important idea? If so, what idea does it convey?

What about the second sentence, “After all, the practice of science requires scientists to share their theories and experiments with each other”? Does this convey an important idea? If so, what idea does it convey?

When trying to decide if the first sentence conveys an important idea, I notice the reason indicator expression “after all.”

“Anyone would be crazy to think that science can advance without the free dissemination of ideas. **After all**, the practice of science requires scientists to share their theories and experiments with each other. That’s why I believe that censorship is wrong.”

1. Censorship is wrong.

This tells us that the second sentence is being given as a reason to believe the first, and if the first sentence is supported with reasons, then it’s a player in the argument.

But, is the idea conveyed by this sentence *exactly what the sentence says*, making it a normal statement, does the sentence convey an idea that’s *different from* the idea that it explicitly states, making it a masking declarative?

I think it’s a masking declarative because it seems to me that the important idea conveyed by the first sentence *isn’t* the assertion that everyone who believes that science can advance without unrestricted communication must suffer from an acute mental illness. The important idea conveyed by the first sentence is something else.

So what do people *mean* when they say “Anyone would be crazy to think that science can advance without the free dissemination of ideas?” They mean “Science can’t advance without the free dissemination of ideas.” That, then, is what we’ll write in our list of important ideas.

“Anyone would be crazy to think that science can advance without the free dissemination of ideas. After all, the practice of science requires scientists to share their theories and experiments with each other. That’s why I believe that censorship is wrong.”

U 1. Censorship is wrong.

2. Science can’t advance without the free dissemination of ideas.

There’s only one sentence left in the argument, the second sentence. And once again, I notice the “after all.”

“Anyone would be crazy to think that science can advance without the free dissemination of ideas. **After all,** the practice of science requires scientists to share their theories and experiments with each other. That’s why I believe that censorship is wrong.”

- U 1. Censorship is wrong.
- 2. Science can’t advance without the free dissemination of ideas.

This “after all” tells us that “the practice of science requires scientists to share their theories and experiments with each other,” is being given as a reason to believe something. This means that it plays a role in the argument and so it must be important.

“Anyone would be crazy to think that science can advance without the free dissemination of ideas. **After all,** the practice of science requires scientists to share their theories and experiments with each other. That’s why I believe that censorship is wrong.”

- U 1. Censorship is wrong.
- 2. Science can’t advance without the free dissemination of ideas.
- 3. The practice of science requires scientists to share their theories and experiments with each other.

Identifying the Roles, Identifying the Inferences, and Diagramming

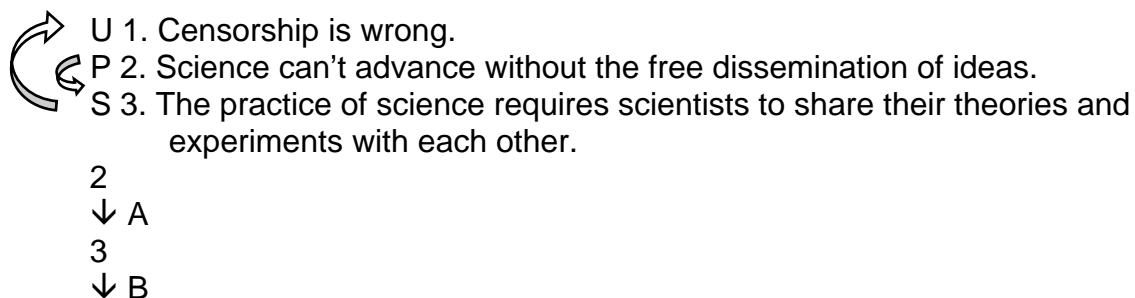
Stop and Think

Now that we have our list of ideas, take a moment and try to identify the argumentative role of these ideas, draw in the inferences, and diagram the argument yourself.

▪ First Try

Suppose we decide to diagram the argument like this:

“Anyone would be crazy to think that science can advance without the free dissemination of ideas. After all, the practice of science requires scientists to share their theories and experiments with each other. That’s why I believe that censorship is wrong.”



1

Let's double-check, reading up the arrows (away from the arrow heads) with a reason indicator expression. I'll use "because."

Reading up inference A, we get "The practice of science requires scientists to share their theories and experiments with each other because science can't advance without the free dissemination of ideas."

Does this make sense? Well, I don't think it's *obviously* bad.

Does this correspond to the passage? Not really. Compare the relevant part of the original passage, "Anyone would be crazy to think that science can advance without the free dissemination of ideas. [Science can't advance without the free dissemination of ideas.] After all, the practice of science requires scientists to share their theories and experiments with each other..." with what we get when we read up our inference A, "The practice of science requires scientists to share their theories and experiments with each other because science can't advance without the free dissemination of ideas."

Can you see the difference between the two inferences?

The original passage	Our inference
"Science can't advance without the free dissemination of ideas. After all , the practice of science requires scientists to share their theories and experiments with each other..."	"The practice of science requires scientists to share their theories and experiments with each other because science can't advance without the free dissemination of ideas."

This isn't an easy difference to spot. Here's a useful trick: when we're trying to understand something about the logic of a certain passage (whether the inferences in two arguments are the same, whether one idea follows logically from another, etc), we can replace the nonlogical expressions (right now, that's everything that's not an inference indicator expression) with other expressions until the logic is clearer.

This isn't as difficult as it sounds, once you get the hang of it. The general idea is to find a passage that's *logically* identical to the passage at hand, but which has content that's easier for us to understand.

For instance, in this case, we'll replace "science can't advance without the free dissemination of ideas," with something else in both passages. Let's use "George Washington is an important historical figure."

The original passage	Our inference
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<p>“Science can’t advance without the free dissemination of ideas. After all, the practice of science requires scientists to share their theories and experiments with each other...”</p>	<p>“The practice of science requires scientists to share their theories and experiments with each other because science can’t advance without the free dissemination of ideas.”</p>
<p>“George Washington is an important historical figure. After all, the practice of science requires scientists to share their theories and experiments with each other...”</p>	<p>“The practice of science requires scientists to share their theories and experiments with each other because George Washington is an important historical figure.”</p>

Now let’s replace “the practice of science requires scientists to share their theories and experiments with each other” with “George Washington was the first president of the United States.”

The original passage	Our inference
<p>“Science can’t advance without the free dissemination of ideas. After all, the practice of science requires scientists to share their theories and experiments with each other...”</p>	<p>“The practice of science requires scientists to share their theories and experiments with each other because science can’t advance without the free dissemination of ideas.”</p>
<p>“George Washington is an important historical figure. After all, he was the first president of the United states.”</p>	<p>“George Washington was the first president of the United states because George Washington is an important historical figure.”</p>

See how each passage is paralleled by the passage below it?

The hope is that the bottom passages are easier to compare to each other. Take a look at them. Are they the same? No. The first passage makes sense, because it gives Washington’s status as the first president as reason to think that he’s historically important. The second passage, however, is very strange. It cites the fact that George Washington is an important historical figure as reason to believe that he was the first president of the United States, but that doesn’t work. (Cleopatra was an important historical figure, but she wasn’t the first president of the United States.)

So, the bottom passages aren’t the same. Since they’re parallel to the upper passages, the upper passages aren’t the same either. And since the upper passages represent our inference and the original passage, our inference doesn’t correspond to the original passage. We must have gotten the inference wrong. We need to try again.

- Second Try


It’s always a good idea to use the inference indicator expressions in an argument. Let’s start by looking at “after all,” the inference indicator expression between ideas 2 and 3.

“(2) Anyone would be crazy to think that science can advance without the free dissemination of ideas. **After all**, (3) the practice of science requires scientists to share their theories and experiments with each other. That’s why I believe that censorship is wrong.”

- U 1. Censorship is wrong.
- 2. Science can’t advance without the free dissemination of ideas.
- 3. The practice of science requires scientists to share their theories and experiments with each other.


“After all,” is a reason indicator expression, like “because.” Referring to the ideas by number, the argument is saying “2. After all, 3,” which means that 3 is being given as a reason to believe 2.

“(2) Anyone would be crazy to think that science can advance without the free dissemination of ideas. **After all**, (3) the practice of science requires scientists to share their theories and experiments with each other. That’s why I believe that censorship is wrong.”

- U 1. Censorship is wrong.
-  2. Science can’t advance without the free dissemination of ideas.
- 3. The practice of science requires scientists to share their theories and experiments with each other.

Now let’s look at the “that’s why.”

“(2) Anyone would be crazy to think that science can advance without the free dissemination of ideas. **After all**, (3) the practice of science requires scientists to share their theories and experiments with each other. **That’s why** (1) I believe that censorship is wrong.”

- U 1. Censorship is wrong.
-  2. Science can’t advance without the free dissemination of ideas.
- 3. The practice of science requires scientists to share their theories and experiments with each other.



“That’s why” is a conclusion indicator expression, like “therefore,” so it tells us that idea 1 is concluded from something. Of course, that isn’t telling us much. Idea 1 is the ultimate conclusion of the argument, after all, so it must be concluded from something. The question is, what?

At first glance, both indicator expressions in this argument seem to apply to idea 3. “After all” is a reason indicator expression showing that idea 3 is being given as reason to believe idea 2. “That’s why” is a conclusion indicator expression, appearing to show

that idea 1 is concluded from idea 3. In other words, the idea 3 looks like it's being given as a reason to believe *both* idea 2 *and* idea 1.




Although one idea *can* be given as a reason to believe multiple other ideas, that doesn't happen very often and in particular it isn't happening here. Although the "after all" *does* tell us that idea is the reason to believe idea 2, the "that's why" tells us that idea 1 follows from the whole previous bit of reasoning in the passage. In other words, it follows from the little "sub-argument" that goes from idea 3 to idea 2.).

"(2) Anyone would be crazy to think that science can advance without the free dissemination of ideas. After all, (3) the practice of science requires scientists to share their theories and experiments with each other. That's why (1) I believe that censorship is wrong."

- U 1. Censorship is wrong.
-  2. Science can't advance without the free dissemination of ideas.
-  3. The practice of science requires scientists to share their theories and experiments with each other.

Recognizing this gives us the following diagram.

"(2) Anyone would be crazy to think that science can advance without the free dissemination of ideas. After all, (3) the practice of science requires scientists to share their theories and experiments with each other. That's why (1) I believe that censorship is wrong."

-  U 1. Censorship is wrong.
-  S 2. Science can't advance without the free dissemination of ideas.
-  P 3. The practice of science requires scientists to share their theories and experiments with each other.

3
↓ A
2
↓ B
1

We know that idea 3 is a premise because it has an arrow going from it but not to it. We know that idea 2 is a subconclusion because it has an arrow going from it and to it. And of course the ultimate conclusion, idea 1, has an arrow going to it but not from it.

- A Fairly Difficult Diagram

This is not a particularly easy argument to diagram because the order in which the ideas appear in the passage isn't the same as their logical order. If the first idea in the passage had been supported by the second idea in the passage, and the second idea

supported by third, it would have been easier. Or if the first idea in the passage had given us reason to believe the second idea in the passage, and the second idea had given us reason to believe the third, that wouldn't have been too bad, either. But *no*. As the passage is written, the first idea is supported by the second and the third idea is supported by the first. This can make an argument more difficult to diagram, but sometimes just knowing that this can happen helps.

Step 3 - Evaluating the Argument

Complete versus Focused Evaluation

Now that we have the argument diagrammed, we can evaluate it.

So far, we've been evaluating arguments from the top down, starting with the premise and examining each inference until we found something wrong or ran out of places to look. This is a good way to proceed when you're just starting out, because its systematic nature reinforces the techniques of premise and inference evaluation and gives you a standard way to approach an argument. Evaluating every premise and every inference, is what we might call a "complete evaluation," and it gives us a lot of useful practice.

Now that you're no longer a novice, though, we can begin to assess an argument more efficiently. Instead of discussing every relevant aspect of the argument until we find a problem, we can survey the entire argument for strengths and weaknesses and restrict our attention to those. We'll call an assessment that homes in on only one or two points in an argument, a "focused evaluation." A focused evaluation normally centers its attention on the worst errors, on just enough errors to undermine the argument, or on the parts of an argument that seem strongest or most interesting.

Obviously, focused evaluations tend to be shorter and more to the point than complete evaluations. We need to be careful when leveling a focused evaluation, though. Sometimes it's difficult to see the problems with an argument, so if we can't see anything wrong with an argument right away, we shouldn't just assume that everything's okay. We should go back and examine it from the top down, as we have been doing, to make sure.

So, let's do a focused evaluation on the argument that we've just analyzed.

"Anyone would be crazy to think that science can advance without the free dissemination of ideas. After all, the practice of science requires scientists to share their theories and experiments with each other. That's why I believe that censorship is wrong."

1. Censorship is wrong.
2. Science can't advance without the free dissemination of ideas.

3. The practice of science requires scientists to share their theories and experiments with each other.

3
↓ A
2
↓ B
1

Stop and Think

What parts of this argument should we *not* evaluate? Why?

Of the parts of the argument that we may evaluate, what do you think is the weakest? Why?

(Remember, your assessment isn't necessarily wrong if it disagrees with mine. Just make sure that you can see my point, and understand my evaluation.)

We can't criticize this argument by disagreeing with ideas 1 or 2, because both of these ideas are conclusions (1 is the ultimate conclusion and 2 is a subconclusion) and because we never evaluate conclusions directly when giving an evaluation of an argument. The argument, after all, doesn't ask us to simply accept conclusions, but instead tries to convince us that its conclusions are true. This means that if we find ourselves disagreeing with a conclusion in an argument, we should carefully examine the reasons advanced in its support. In this case, if we don't believe ideas 1 or 2, maybe it's because the argument has made a blunder somewhere in its attempts to convince us of these ideas.

When I look over the argument, I think that idea 3, the premise, is pretty good. Maybe some other kind of being with a much bigger brain and a much longer life could figure out everything alone, but for mere human beings that's impossible. We can remember only so much and we don't have enough time to answer all our questions individually. Without the ability to pool our resources, science would never get done.

I also think that inference A is reasonably strong. If Bob believes that science requires scientists to share their theories and experiments with each other (idea 3) then he'll be very inclined to believe that science can't advance without the free dissemination of ideas (idea 2). After all, how can scientists share insights with each other if communication is restricted?

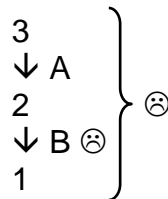
I'm suspicious, however, of inference B. Suppose that Bob believes idea 2, the subconclusion. How likely is Bob to believe idea 1 on this basis? Not very likely, in my opinion. Bob could believe that science can't advance without the free dissemination of ideas (idea 2) and still not believe that censorship is wrong (idea 1). Perhaps he thinks that science is less important than shielding our children and uneducated citizens from

pernicious influences, and so perhaps he's willing to advocate censorship even if it does preclude scientific advancement. More likely, perhaps Bob appreciates the importance of science, and so would disapprove of censorship in that arena, but thinks that the free dissemination of ideas in scientific circles can peacefully coexist with censorship in other areas. Couldn't we let scientists free publish their results and still censor other things, like pornography?

Because inference B is bad it deserves a frowning face, and because a premise / subconclusion / conclusion argument is only as good as its worst premise or inference, the entire argument will get a frowning face too.

"Anyone would be crazy to think that science can advance without the free dissemination of ideas. After all, the practice of science requires scientists to share their theories and experiments with each other. That's why I believe that censorship is wrong."

1. Censorship is wrong.
2. Science can't advance without the free dissemination of ideas.
3. The practice of science requires scientists to share their theories and experiments with each other.

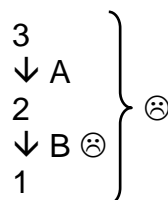


Summary

Here's how we analyzed and evaluated the argument in this example.

"Anyone would be crazy to think that science can advance without the free dissemination of ideas. After all, the practice of science requires scientists to share their theories and experiments with each other. That's why I believe that censorship is wrong."

1. Censorship is wrong.
2. Science can't advance without the free dissemination of ideas.
3. The practice of science requires scientists to share their theories and experiments with each other.



This example taught us

Argument recognition skills, specifically

- that non-literal assertions of belief can be the conclusions of arguments.

Argument analysis skills, specifically

- how to identify and rephrase masking statements.

Argument evaluation skills, specifically

- how to do a focused evaluation of a P / S / U argument.

Example 9

Step 1 - Recognizing an Argument

Here's the longest passage we've seen yet!

“Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education.”

Stop and Think

What do you think this passage is? Is it an argument? An explanation of why? Neither?

I see a number of inference indicator expressions in this passage (“because,” “after all,” and “inasmuch”) so chances are good that this passage contains either an argument or an explanation of why. But which one?

I think that this passage is doing more than simply explaining why something is the case. This passage contains an argument.

Step 2- Analyzing the Argument

Identifying the Ultimate Conclusion

Stop and Think

Read over the passage again. What do you think the ultimate conclusion is? What's this argument trying to prove?

What to do if we're not sure what the ultimate conclusion is, or what the important ideas are.

If you think that you've identified the ultimate conclusion, that's great! If you're not completely sure what the ultimate conclusion is, that's great, too! It's not at *all* unusual, as arguments get more complex, to be uncertain about the ultimate conclusion, or unclear about what ideas are important enough to be included in our list. That's okay.

A very good rule of thumb, for almost anything, is "If you can't do something, don't." We should start our list of ideas with the ultimate conclusion, if we know what it is, but if we *don't* know what the ultimate conclusion is, we should simply write down the ideas in the order they occur in the passage. Similarly, if we're not sure whether an idea is important, we should include it just to be safe. It's far better to include things in your list that you *don't* need than to leave out things that you *do*. The worst that will happen is that some of the ideas in our list won't be included in our eventual diagram. The ultimate conclusion will be the idea where all of the inferences finally stop, the metaphorical Rome to which all of the other ideas eventually lead.

Once we have our list of ideas, we'll start drawing in the inferences. As we've already seen, it's relatively common for the steps of identifying the important ideas, identifying the argumentative role of the ideas, and identifying the inferences, to become intermingled. The fact that two ideas are connected with "thus," for instance, might lead us to recognize that they must be important. Whenever ideas are connected with an inference, they're probably part of the argument. We can then write these ideas in our list and draw in the arrow corresponding to the "thus" *right away*, thereby indicating that the idea at the bottom of the arrow is not a premise, but must be either the ultimate conclusion or a subconclusion.

So, just for practice, let's say that although we can recognize that this passage contains an argument, we have no idea what the ultimate conclusion is. No problem! We'll simply write down the important ideas in the order they occur, not worrying about putting ultimate conclusion first.

Identifying the Other Important Ideas, their Roles, the Inferences, and Diagramming the Argument

Here's the passage again.

"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your

tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."

Let's go through this passage one sentence at a time. It might seem like a painstaking process, but it's better to intentionally take pains now, and go slowly, than to suffer them unintentionally later.

Stop and Think

Does the first sentence, "Picture this," give us an important idea that we should include in our list?

The first sentence, "Picture this," is a command. If it's included in our list, we'll need to rephrase it as a statement, presumably "You should picture this." But it doesn't seem to me as though "You should picture this" is playing any argumentative role here. "Picture this" is a normal command, so I'd leave it out.

Let's consider the next four sentences as a group since they seem to belong together.

"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."

Stop and Think

What should we do with these four sentences? Should we include them, or some summary of them, in our list of ideas?

It seems to me as though the role played by these sentences isn't primarily *argumentative*, in our sense of "argumentative." They aren't being given as evidence for

anything. Instead, the sentences, from “You’re away from home for the first time” through “And now you’re looking at the cost of your textbooks and wondering which is more important: school supplies or food,” serve a primarily *emotional* purpose. They’re designed to make us empathize with the financial plight of college students in the hope that this will lead us to view the fund-raising drive more favorably, but emotional manipulation shouldn’t be confused with rational persuasion. Emotions are important, but they can’t serve as evidence for the objective truth of anything (at least not without some further argument linking emotion to truth). This means that we won’t include these sentences in our list.

~~“Picture this. You’re away from home for the first time. You’re struggling to get settled in the dorm. You’ve just written the largest check of your life to cover your tuition. And now you’re looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can’t be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. After all, inasmuch as athletes have extra demands on their time, it’s harder for them to hold down a job to help pay for their education.”~~

(By the way, the practice of omitting emotionally inflammatory sentences from our list of ideas carries the important implication that such language doesn’t affect the worth of the argument at all. It’s easy to think that an argument is better than it actually is simply because its emotionally loaded language sweeps its audience toward the conclusion. It’s also easy to think that an argument is worse than it actually is simply because it makes an insultingly obvious appeal to the emotions. Now you can see why both tendencies are mistaken. Since the emotional language *disappears* from the list of ideas, it disappears from the diagram as well. And since the evaluation of an argument is solely a function of its diagram, this evaluation is unaffected by any appeals to emotions in the original passage. Such appeals may be wise or unwise, offensive or inoffensive, effective or ineffective from a purely psychological point of view, but they can’t make an argument good or bad.)

So, we’ve agreed to ignore the first five sentences in the passage. This brings us to “It can’t be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students.”

~~“Picture this. You’re away from home for the first time. You’re struggling to get settled in the dorm. You’ve just written the largest check of your life to cover your tuition. And now you’re looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can’t be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do~~

you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."

Stop and Think

What should we do with this sentence? Should we leave it out? Put it in? Split it into two ideas and include both? Split it into two ideas and include one idea without the other?

Looking at this sentence, I notice that it appears to contain two ideas: "the cost of higher education is rising every year" and "college is becoming financially prohibitive for many students." I'm not entirely sure, at this point, if either of these ideas is important to the argument, so I'll play it safe and write them down.

~~"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."~~

1. The cost of higher education is rising every year
2. College is becoming financially prohibitive for many students.

Now what about the next sentence, "But do you think that all students bear the financial burden with equal ease?"

~~"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."~~

1. The cost of higher education is rising every year

2. College is becoming financially prohibitive for many students.

Stop and Think

What should we do with this sentence? Should we leave it out? Put it in?

This sentence is a question, of course, so if we include it in our list, we'd treat it as a statement question and rephrase it, presumably as "Not all students bear the financial burden with equal ease," since that seems to be the answer that the author has in mind.

I'm not sure about the idea "Not all students bear the financial burden with equal ease." Maybe it's important; maybe it isn't. Since I'm not sure, I'll put it in our list, just to be safe.

~~"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."~~

1. The cost of higher education is rising every year
2. College is becoming financially prohibitive for many students.
3. Not all students bear the financial burden with equal ease

We're up to the sentence "And, if not, what do you think should be done about it?"

~~"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."~~

1. The cost of higher education is rising every year
2. College is becoming financially prohibitive for many students.

3. Not all students bear the financial burden with equal ease.

Stop and Think

What should we do with this sentence, do you think? Should we treat it as a statement question, rephrase it, and include it in our list, or should we treat it as a normal statement and ignore it?

This sentence is a question too, so if we were to include it in our list, we'd need to rephrase it. But how should we rephrase this question? What answer does the author intend by it? Presumably, the author intends an answer like "athletes should get scholarships," but since that's coming up later in the passage, I don't see an advantage to rephrasing this question now. It's not as though we'll miss out on our one and only chance to include this idea. Let's treat this "And, if not, what do you think should be done about it?" as a normal question and leave it off our list.

~~"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."~~

1. The cost of higher education is rising every year
2. College is becoming financially prohibitive for many students.
3. Not all students bear the financial burden with equal ease.

Now take a look at the next sentence, "I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money."

~~"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed~~

with alumni money. After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."

1. The cost of higher education is rising every year
2. College is becoming financially prohibitive for many students.
3. Not all students bear the financial burden with equal ease.

Stop and Think

What should we do with this sentence? Should we ignore it, leaving it off our list of ideas? Should we include the whole sentence in our list of important ideas, just as it is? Should we divide the sentence into two ideas and include both ideas in our list of ideas? Or should we divide the sentence into two ideas and include one idea, but not the other, in our list of ideas?


The first thing I notice about this sentence is that it contains two ideas connected with the inference indicator expression "because."

"I think that we should put increasing effort into our alumni fund-raising drive **because** athletes deserve scholarships financed with alumni money"

Since this sentence contains an inference indicator expression, it's probably part of the argument and we should include it. The "because" also shows that one part of this sentence is given as a reason to believe the other part – that there is an *inference* connecting the two parts of this sentence. We'll want to draw in this inference with an arrow, but in order to do that, we'll need to have both of the parts written down on their own. That's why we should divide this sentence into two ideas and include both ideas in our list.

And we might as well draw in the inference between these ideas right away, too. Remember that "because" is a reason indicator expression. This means that the second part of the sentence, "athletes deserve scholarships financed with alumni money," is being given as a reason to believe the first part of the sentence, "We should put increasing effort into our alumni fund-raising drive."

~~"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive **because** athletes deserve scholarships financed with alumni money.~~ After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."

1. The cost of higher education is rising every year
2. College is becoming financially prohibitive for many students.
3. Not all students bear the financial burden with equal ease.
-  4. We should put increasing effort into our alumni fund-raising drive.
5. Athletes deserve scholarships financed with alumni money.

There's only one sentence left!

“After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education.”

Stop and Think

What would you have us do with this idea? Should we ignore it? Should we include it whole? Should we divide it into two ideas and include both ideas in our list? Or should we divide the sentence into two ideas and include one idea, but not the other, in our list?


I notice that this sentence contains two inference indicator expressions, “after all” and “inasmuch as.”

“**After all**, **inasmuch as** athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education.”

These expressions tell us that this sentence is playing some role in the argument, so we should include it. One of these inference indicator expressions is also showing us that one part of the sentence is being given as a reason to believe the other part. This means that we'll need to list these parts separately, including them both in our list of ideas, in order to represent the inference.

~~“Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive **because** athletes deserve scholarships financed with alumni money. **After all**, **inasmuch as** athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education.”~~

1. The cost of higher education is rising every year
2. College is becoming financially prohibitive for many students.
3. Not all students bear the financial burden with equal ease.

- 
4. We should put increasing effort into our alumni fund-raising drive.
 5. Athletes deserve scholarships financed with alumni money.
 6. Athletes have extra demands on their time.
 7. It's harder for them to hold down a job to help pay for their education.

Stop and Think

Once again, consider the sentence “After all, inasmuch as athletes have extra demands on their time, it’s harder for them to hold down a job to help pay for their education.”

Which inference indicator expression in this sentence shows that one part of the sentence is being given as a reason to believe the other part? Is it the “after all” or the “Inasmuch as?”

It seems to me that the “after all” indicates that the entire sentence is being given as a reason to believe some other part of the passage. The “inasmuch as,” on the other hand, shows that one part of the sentence is being given as a reason to believe the other part, so let’s focus on that inference indicator expression.

“After all, inasmuch as athletes have extra demands on their time, it’s harder for them to hold down a job to help pay for their education.”





Stop and Think

According to the “inasmuch as,” how does the inference run? Is “athletes have extra demands on their time” being given as a reason to believe “it’s harder for them to hold down a job to help pay for their education,” or is “it’s harder for them to hold down a job to help pay for their education,” being given as a reason to believe “athletes have extra demands on their time?”

Since “Inasmuch as” is a reason indicator expression, like “because,” it introduces an idea that’s being given as a reason to believe some other idea. In this case, it’s introducing “athletes have extra demands on their time,” so that must be what’s being given as a reason to believe another idea. This means that there should be an inference arrow running from “Athletes have extra demands on their time,” to “It’s harder for them to hold down a job to help pay for their education.” Let’s draw it in.

~~“Picture this. You’re away from home for the first time. You’re struggling to get settled in the dorm. You’ve just written the largest check of your life to cover your tuition. And now you’re looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can’t be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into~~

our alumni fund-raising drive **because** athletes deserve scholarships financed with alumni money. **After all, inasmuch as** athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."

1. The cost of higher education is rising every year
2. College is becoming financially prohibitive for many students.
3. Not all students bear the financial burden with equal ease.
-  4. We should put increasing effort into our alumni fund-raising drive.
-  5. Athletes deserve scholarships financed with alumni money.
-  6. Athletes have extra demands on their time.
-  7. It's harder for them to hold down a job to help pay for their education.

Looking at our list of ideas and comparing it to the passage, we see that we're done listing ideas and that we've indicated the inferences corresponding to the indicator expressions "**because**" and "**inasmuch as**."

Each and every inference indicator expression should have a corresponding inference in the diagram, though, and we still haven't drawn in an inference for the "**after all**."

Stop and Think

Where would you draw the arrow representing the inference indicated by "**after all**?"

"After all" is a reason indicator expression, which means that it's introducing a reason to believe something else. In this case, "inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to pay for their education," is being given as a reason to believe "athletes deserve scholarships financed with alumni money." See?

"...we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. **After all**, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."

But the sentence "inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to pay for their education," is represented, in our list of ideas, as ideas 6, 7 and the inference from 6 to 7. Thus, it's this little unit of reasoning that's being given as reason to believe "athletes deserve scholarships financed with alumni money."

When a little unit of reasoning is cited as a reason to believe an idea, we draw an inference from the conclusion of that unit of reasoning to the idea supported. In this case, we'd draw an arrow from 7 to 5, like so:

~~"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your~~

~~tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food.~~ It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? ~~And, if not, what do you think should be done about it?~~ I think that we should put increasing effort into our alumni fund-raising drive **because** athletes deserve scholarships financed with alumni money. **After all, inasmuch as** athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."

1. The cost of higher education is rising every year
2. College is becoming financially prohibitive for many students.
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4. We should put increasing effort into our alumni fund-raising drive.
5. Athletes deserve scholarships financed with alumni money.
6. Athletes have extra demands on their time.
7. It's harder for them to hold down a job to help pay for their education.

Looking at our work so far, we can see that ideas 5 and 7 are subconclusions because they have inferences going both to them and from them.

1. The cost of higher education is rising every year
2. College is becoming financially prohibitive for many students.
3. Not all students bear the financial burden with equal ease.
4. We should put increasing effort into our alumni fund-raising drive.
- S** 5. Athletes deserve scholarships financed with alumni money.
6. Athletes have extra demands on their time.
- S** 7. It's harder for them to hold down a job to help pay for their education.

Stop and Think

What about idea 6? It doesn't have an arrow going to it, but maybe that's just because we haven't drawn it in yet. Does the argument give us any reason to believe that athletes have extra demands on their time? Should we draw an arrow from any of the other ideas in our list to 6?

I don't see how the argument gives us reason to believe that athletes have extra demands on their time. (For each of the ideas in our list, try saying "Athletes have extra demands on their time because..." followed by that idea, for instance, "Athletes have

extra demands on their time because the cost of higher education is rising every year.” I don’t think that anything will sound very good.) If I didn’t already believe that athletes are exceptionally busy, I wouldn’t find anything in the argument to change my mind, so it’s a premise.

1. The cost of higher education is rising every year
2. College is becoming financially prohibitive for many students.
3. Not all students bear the financial burden with equal ease.
4. We should put increasing effort into our alumni fund-raising drive.
- S** 5. Athletes deserve scholarships financed with alumni money.
- P** 6. Athletes have extra demands on their time.
- S** 7. It’s harder for them to hold down a job to help pay for their education.



Now let’s look at ideas 1, 2 and 3.

Stop and Think

What should we do with ideas 1, 2, and 3? Are they premises in the argument? Are they subconclusions?


Are ideas 1, 2, and 3 given as reason to believe any of the other ideas? No, because each of the other ideas is either a premise or is already proven by something else. (Certainly idea 1, the claim that the cost of education is rising every year *touches upon* other ideas, because it helps to set the stage for the argument. By noting that higher education is increasingly expensive, the author motivates her discussion of athletic scholarships. I do not believe, however, that the author uses this claim to *prove* any of the other ideas.)

Are ideas 1, 2, and 3 supported *by* any of the other ideas? I don’t think so. Someone *could* use idea 7, the claim that its harder for athletes to hold down a job to pay for their education, to support idea 3, the claim that not all students bear the financial burden with equal ease, but I don’t think that this is what the argument at hand is doing. In this argument, idea 7 is supported by idea 6 and used to support idea 5.


Since ideas 1, 2, and 3 turn out not to play any real role in the argument, we might as well ignore them.

~~“Picture this. You’re away from home for the first time. You’re struggling to get settled in the dorm. You’ve just written the largest check of your life to cover your tuition. And now you’re looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can’t be denied that the cost of higher education is rising every year; between tuition and the price of books,~~

college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? ~~And, if not, what do you think should be done about it?~~ I think that we should put increasing effort into our alumni fund-raising drive **because** athletes deserve scholarships financed with alumni money. **After all, inasmuch as** athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."

- ~~1. The cost of higher education is rising every year~~
 - ~~2. College is becoming financially prohibitive for many students.~~
 - ~~3. Not all students bear the financial burden with equal ease.~~
 4. We should put increasing effort into our alumni fund-raising drive.
- 
- S** 5. Athletes deserve scholarships financed with alumni money.
 - P** 6. Athletes have extra demands on their time.
 - S** 7. It's harder for them to hold down a job to help pay for their education.

We can now tell that everything "ends up" at idea 4. All of the ideas go about the job of proving that we should put increasing effort into our alumni fund-raising drive so that must be the ultimate conclusion of this argument!

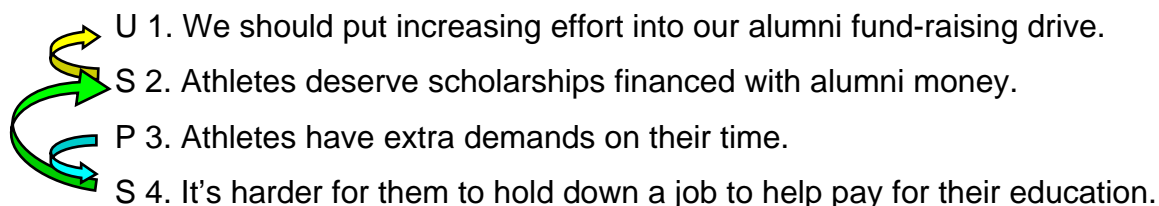
- ~~1. The cost of higher education is rising every year~~
 - ~~2. College is becoming financially prohibitive for many students.~~
 - ~~3. Not all students bear the financial burden with equal ease.~~
 - U** 4. We should put increasing effort into our alumni fund-raising drive.
- 
- S** 5. Athletes deserve scholarships financed with alumni money.
 - P** 6. Athletes have extra demands on their time.
 - S** 7. It's harder for them to hold down a job to help pay for their education.

Before we diagram this argument, let's read up the arrows with "because," just to make sure that we've gotten the inferences right.

Reading up the inferences gives us "We should put increasing effort into our alumni fund-raising drive (4) because athletes deserve scholarships financed with alumni money (5). Athletes deserve scholarships financed with alumni money (5) because it's harder for athletes to hold down a job to pay for their education (7). And it's harder for athletes to hold down a job to pay for their education (7) because athletes have extra demands on their time (6)."

Whatever we might think about the strength of this argument, the reading makes sense. More importantly, it conforms rather well to the original passage, which means we may assume that we've gotten it right so far. Let's renumber ideas and diagram the argument.

"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive **because** athletes deserve scholarships financed with alumni money. **After all, inasmuch as** athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."



This is the first argument we've seen with multiple subconclusions! There is, theoretically, no limit to how long a P / S / U argument can get.

As you might see here, and as you will *certainly* appreciate later on, being able to diagram an argument is often an end in itself because it helps us to understand the argument better. This may not have been obvious in chapter 2, where the arguments were of the structurally simple premise / ultimate conclusion type and we might not have needed to diagram the arguments in order to see how they worked. As we start looking at more intricate pieces of reasoning though, we'll find that the diagramming process is an important aid to comprehension.

Step 3 - Evaluating the Argument

We're finally ready to evaluate this argument! Since this is a longish argument, let's not evaluate each and every part, unless we need to. Let's do a focused evaluation instead.

Stop and Think

Look over this argument again.

What parts of the argument should we *not* discuss in our final evaluation of the argument?

What part of the argument do you think is the strongest?

What part of the argument do you think is the weakest?

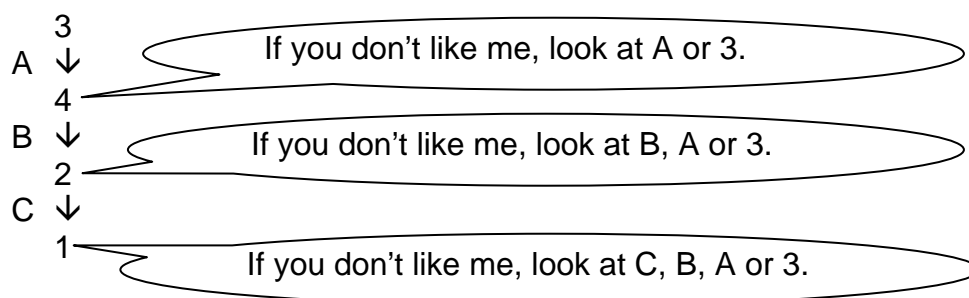
(Remember, your assessment of the argument doesn't absolutely have to agree with mine.)

"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."

1. We should put increasing effort into our alumni fund-raising drive.
2. Athletes deserve scholarships financed with alumni money.
3. Athletes have extra demands on their time.
4. It's harder for them to hold down a job to help pay for their education.

- 3
A ↓
4
B ↓
2
C ↓
1

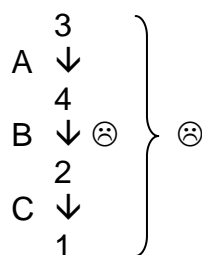
We never directly criticise a conclusion, be it the ultimate conclusion or a subconclusion, in our final evaluation of an argument. This means that if we don't like the ultimate conclusion or a subconclusion, we should try to find something wrong with the reasoning advanced in support of it.



Looking at this argument, I think that premise 3 is fine. I wouldn't know this from personal experience, but it's probably true that athletes have extra demands on their time – practice sessions and games, for instance. And people can believe this even if they don't already think that we should put increasing effort into the alumni fund-raising drive, so I'd say that this premise is okay.

Inferences A and C look good to me, too. It seems to me that if Bob believes that athletes have extra demands on their time (idea 3) he'll probably believe that it's harder for them to hold down a job (idea 4) everything else being equal. And if Bob believes that athletes deserve scholarships financed with alumni money (idea 2) he'll be at least *somewhat* likely to believe that we should put increasing effort into our alumni fund-raising drive (idea 1).

The weak link here, I think, is inference B. Bob needn't think that athletes deserve alumni money on the basis of believing that it's harder for athletes to hold down a job. "Why should athletic scholarships tap *alumni* money?" he might wonder. "Mightn't athletes be eligible for special students loans instead? Or mightn't they be awarded scholarships backed by the proceeds from ticket sales, or by support from local businesses?" Since even one bad premise or one bad inference is enough to undermine a premise / subconclusion / conclusion argument, we can say the that this argument is bad.



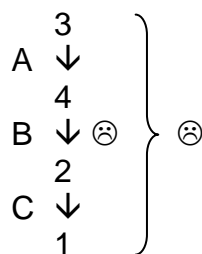
Summary

Here's how we analyzed and evaluated this argument:

"Picture this. You're away from home for the first time. You're struggling to get settled in the dorm. You've just written the largest check of your life to cover your

tuition. And now you're looking at the cost of your textbooks and wondering which is more important: school supplies or food. It can't be denied that the cost of higher education is rising every year; between tuition and the price of books, college is becoming financially prohibitive for many students. But do you think that all students bear the financial burden with equal ease? And, if not, what do you think should be done about it? I think that we should put increasing effort into our alumni fund-raising drive because athletes deserve scholarships financed with alumni money. After all, inasmuch as athletes have extra demands on their time, it's harder for them to hold down a job to help pay for their education."

1. We should put increasing effort into our alumni fund-raising drive.
2. Athletes deserve scholarships financed with alumni money.
3. Athletes have extra demands on their time.
4. It's harder for them to hold down a job to help pay for their education.



This argument taught us:

Argument analysis skills, specifically

- How to analyze an argument if we're not sure what the ultimate conclusion is.
- How to analyze an argument if we're not sure what ideas are important.

Real Life

As we saw in Chapter 1, we might not always take the time to write out the diagram of an argument we're examining (unless, of course, that argument is pretty long, complex, or important). But we probably will identify the ultimate conclusion of the argument, determine which ideas are premises and which are subconclusions, figure out how these ideas work together, and use all of this information to evaluate the argument. In other words, when we're thinking about a real argument, in real time, we might end up applying many of the skills that we're learning mentally, instead of on paper.

Let's see how this works with the kind of arguments we've seen in this chapter, arguments containing subconclusions.

Example 1

Take a look at this piece of reasoning:

“Some people think that creationism should be taught in schools. When you think about it, though, you’ll see that creationism has no place in the classroom. After all, it’s pretty much been proven that God doesn’t exist and so creationism is false.”

Stop and Think

Try to analyze and evaluate this argument in your head.

- What’s the ultimate conclusion?
- What are the other important ideas?
- Are these ideas premises or subconclusions?
- If an idea is a premise, is it both true and acceptable to the argument’s audience?
- If an idea is a subconclusion, is it well supported (i.e. is it supported by good reasons and good inferences)?
- Is the ultimate conclusion well supported (i.e. is it supported by good reasons and good inferences)?

It looks to me like “creationism has no place in the classroom” is the ultimate conclusion of this argument. The “after all,” helps me to see that reasons are being given for this claim.

“Some people think that creationism should be taught in schools. When you think about it, though, you’ll see that [(U) creationism has no place in the classroom.] After all, it’s pretty much been proven that God doesn’t exist and so creationism is false.”

The first sentence, “Some people think that creationism should be taught in schools,” isn’t important so I’ll ignore it.

~~“Some people think that creationism should be taught in schools. When you think about it, though, you’ll see that [(U) creationism has no place in the classroom.] After all, it’s pretty much been proven that God doesn’t exist and so creationism is false.”~~

“It’s pretty much been proven that God doesn’t exist” and “creationism is false” are both important ideas, and the “so,” helps me to see that “It’s pretty much been proven that God doesn’t exist” is being given as reason to believe “creationism is false.” This makes “creationism is false” a subconclusion. Since I can’t see that the argument gives us any reason given believe “it’s pretty much been proven that God doesn’t exist,” I think that’s a premise.

~~“Some people think that creationism should be taught in schools. When you think about it, though, you’ll see that [(U) creationism has no place in the classroom.] After all, [(P) it’s pretty much been proven that God doesn’t exist] and so [(S) creationism is false].”~~

All this gives me a pretty good idea of how the argument works. Now is it a good argument? I don't think so. I think that the problem lies with the premise of this argument, the claim that it's pretty much been proven that God doesn't exist. I very much doubt that this premise is true, and so I think that this argument is bad.

Example 2

Now let's consider this argument

"Are you convinced by people who argue that only the theory evolution should be taught in schools? Don't be. Because nobody was around to witness how human beings came into existence, there's no reason think that evolution is a better theory than creationism. Consequently, both theories should be taught to our children."

Stop and Think

Tak a moment to analyze and evaluate this argument mentally.

- What's the ultimate conclusion?
- What are the other important ideas?
- Are these ideas premises or subconclusions?
- If an idea is a premise, is it both true and acceptable to the argument's audience?
- If an idea is a subconclusion, is it well supported (i.e. is it supported by good reasons and good inferences)?
- Is the ultimate conclusion well supported (i.e. is it supported by good reasons and good inferences)?

I think that the ultimate conclusion of this argument is "both theories should be taught to our children." The conclusion-indicator expression "consequently" helps me to see this.

"Are you convinced by people who argue that only the theory evolution should be taught in schools? Don't be. Because nobody was around to witness how human beings came into existence, there's no reason think that evolution is a better theory than creationism. **Consequently**, [(U) both theories should be taught to our children]."

The first sentence is a normal question, and the second sentence is a normal command, so I'll ignore them both.

~~"Are you convinced by people who argue that only the theory evolution should be taught in schools? Don't be. Because nobody was around to witness how human beings came into existence, there's no reason think that evolution is a better theory than creationism. **Consequently**, [(U) both theories should be taught to our children]."~~

The second sentence contains two ideas, “nobody was around to witness how human beings came into existence,” and “there’s no reason to think that evolution is a better theory than creationism.” The “because” tells me that the first of these ideas is being given as a reason to believe the second, making the second idea a subconclusion.

~~“Are you convinced by people who argue that only the theory evolution should be taught in schools? Don’t be. Because [nobody was around to witness how human beings came into existence], [(S) there’s no reason think that evolution is a better theory than creationism]. Consequently, [(U) both theories should be taught to our children].”~~

I don’t see any reason being given to believe the idea that nobody was around to witness how human beings came into existence, though, so I think that idea is a premise.

~~“Are you convinced by people who argue that only the theory evolution should be taught in schools? Don’t be. Because [(P) nobody was around to witness how human beings came into existence], [(S) there’s no reason think that evolution is a better theory than creationism]. Consequently, [(U) both theories should be taught to our children].”~~

Now that I understand how the argument works, I can evaluate it. What do you think about this argument? I see something wrong with it.

The premise, “nobody was around to witness how human beings came into existence,” is fine, so far as I can tell. It’s both true and acceptable to the argument’s audience. But is the subconclusion well-supported? I don’t think so. Take a look.

~~“Are you convinced by people who argue that only the theory evolution should be taught in schools? Don’t be. Because [(P) nobody was around to witness how human beings came into existence], [(S) there’s no reason think that evolution is a better theory than creationism]. Consequently, [(U) both theories should be taught to our children].”~~

The claim that there’s no reason to think that evolution is a better theory than creationism is supposed to follow from the claim that nobody was around to witness how human beings came into existence.

But *does* it follow? I don’t see how. It’s not as though direct perception of an event or process is the only kind of evidence we can have for the occurrence of that event or process. Both evolution and creationism could have left certain traces behind, or there might be particular facts which are more easily understood according to one or another of these theories. In short, the truth of the premises doesn’t show that the subconclusion is probably true as well. The inference is weak, and so the entire argument is bad.

Example 3

Let's work through one more argument.

“Personally, I think that *neither* evolution *nor* creationism should be taught in our schools because, since both theories have strong advocates, no curriculum choice will please everyone.”

Stop and Think

What do you think about this piece of reasoning? As before, first identify the ultimate conclusion of the argument and determine what other ideas are important. If you think that an idea is a premise, ask yourself whether or not it's true and acceptable to the argument's audience. If you think that an idea is a subconclusion, ask yourself whether or not it's well supported. Then take a look at the ultimate conclusion and ask yourself whether or not *it* is well supported.

I think that the ultimate conclusion is “neither evolution or creationism should be taught in our schools.” The reason-indicator expression “because” helps me to see this.

“Personally, I think that [(U) *neither* evolution *nor* creationism should be taught in our schools] because, since both theories have strong advocates, no curriculum choice will please everyone.”

The idea “both theories have strong advocates,” appears to be taken for granted here, making it a premise.

“Personally, I think that [(U) *neither* evolution *nor* creationism should be taught in our schools] because, since [(P) both theories have strong advocates], no curriculum choice will please everyone.”

And the idea “no curriculum choice will please everyone,” looks to me like a subconclusion following from that premise. (The reason indicator expression “since” assists me here.)

“Personally, I think that [(U) *neither* evolution *nor* creationism should be taught in our schools] because, since [(P) both theories have strong advocates], [(S) no curriculum choice will please everyone.]”

At this point, I have pretty good handle on how the argument works. Now it's time to evaluate it.

The premise is okay. Both evolution and creationism *do* have strong advocates and it's reasonable to expect the argument's audience to accept this.

And I think that the subconclusion is well-supported. As we've just seen, the premise is good. Furthermore, people who believe the premise will be strongly inclined to believe the subconclusion is as well. (In other words, the inference between the premise and subconclusion is strong.)

But, what about the ultimate conclusion? Is *it* well supported? Well, the subconclusion supporting it is fine, as we've just seen. But what about the inference between the subconclusion and the ultimate conclusion? Here, I think, the argument breaks down. From the fact that no curriculum choice will please everyone, it simply doesn't follow that neither evolution nor creationism should be taught in school. Who says that only things that please everyone should be taught? What, if anything, could survive that test?

Summary

So we've seen how to do rather a quick analysis and evaluation of slightly more complex arguments, without actually needing to diagram those arguments on paper.

First, we identified the ultimate conclusion of the argument and determined what other ideas were important. If we thought that an idea was a premise, we asked ourselves whether or not it was true and acceptable to the argument's audience. If we thought that an idea was a subconclusion, we asked ourselves whether or not it was well supported (i.e. whether or not it was supported by good reasons and good inferences). And finally, if everything else seemed fine, we ask ourselves whether or not the ultimate conclusion was well supported (i.e. whether or not it was supported by good reasons and good inferences).

In the course of doing all this, we certainly applied the skills that we developed by diagramming arguments – in fact we were basically diagramming the argument in our head, evaluating it as we went along - but it's nice to know that these skills are relevant even when we don't want to take the time to write the diagram out. This makes what we're learning a *lot* more useful.

Constructing Arguments

How can we use what we've learned in this chapter to construct arguments of our own? Remember that the process of constructing arguments involves three main steps:

- 1) determining our ultimate conclusion,
- 2) constructing our chain of reasoning, and
- 3) communicating our argument.

The process of determining our ultimate conclusion involves four sub-steps. Specifically,

- 1a) we pose a question that interests us,
- 1b) we consider various answers to that question,
- 1c) we learn and think more about the issues involved, and

1d) we formulate the answer that we like best.

Since we've already covered each of these sub-steps in Chapter 1, we don't have much left to learn about finding our ultimate conclusion. There is, however, a *lot* more to say about constructing our chain of reasoning and communicating our argument, so we'll pick up there.

Step 2 – Constructing the Chain of Reasoning

Let's return to the diagram I constructed in Chapter 1:

1. We shouldn't aspire to be as independent and autonomous as possible.
2. Some virtues require a level of interdependence.

2
A↓
1

In the process of constructing this diagram, we learned one way to fix a faulty premise: if our premise is false, we can simply change it. In particular, I changed my premise from "All virtues require a level of interdependence," to "Some virtues require a level of interdependence."

As we've seen, however, it isn't enough that a premise be true; it should also be acceptable to the argument's audience. This means that when evaluating our own arguments, we should make sure the other people who read our argument would be likely to accept our premises.

Stop and Think

What should we do if we have a premise that we think is true, but that we're not sure will be accepted by our audience?

Transforming Premises into Subconclusions

If we have a premise that's true but not easily acceptable to most people in our audience, we can give our audience reason to believe that premise by asking "What is one reason to think that this idea is true?" and adding that to our list. In other words, we transform such premises in subconclusions!

For example, let's take another look at the argument I'm constructing.

1. We shouldn't aspire to be as independent and autonomous as possible.
2. Some virtues require a level of interdependence.

A↓
1

Although I think that the premise in my argument is true, I could easily imagine some people doubting it. Maybe they naturally think of courage and independence when they consider virtue, and so find it hard to understand how any virtues require a level of dependence on others.

If asked to give a reason to believe that some virtues require a level of interdependence, I'd answer that interdependence is required by gratitude and forgiveness. (How can you be grateful to anyone if they can't help you, or forgive anyone if they can't hurt you? And how could anyone help or hurt you if you weren't in some way dependent on them, if they couldn't affect you?) Consequently, I'd continue my list as follows:

- U 1. We shouldn't aspire to be as independent and autonomous as possible.
- 2. Some virtues require a level of interdependence.
- 3. Gratitude and forgiveness require interdependence.

Since I've now given my readers reason to believe that idea 2 is true, idea 2 is a subconclusion and idea 3 is the premise, giving us the following diagram.

- U 1. We shouldn't aspire to be as independent and autonomous as possible.
- S 2. Some virtues require a level of interdependence.
- P 3. Gratitude and forgiveness require interdependence.

3
A↓
2
B↓
1

Step 3 – Communicating the Argument

Where to put the Ultimate Conclusion

Now that our premise / subconclusion / ultimate conclusion diagram is ready, the final step is to communicate our argument by writing it down in a reader-friendly passage. We've already seen four tips for writing arguments: we should use complete sentences; we should employ our working vocabulary; we should take advantage of inference-indicator expressions, and we should add some rhetorical flourishes by including question or command sentences. In this chapter, we're ready to add a couple more tips to our arsenal.

First, now that we're dealing with slightly longer arguments, we have more choices about where to put our ultimate conclusion. In particular, we're better able to "sneak up"

on our reader if we're arguing for something we expect to be shocking or controversial. We should exploit this by being sure to place the ultimate conclusion near the end of the passage, if we think that our conclusion would frighten or offend people if we sprang it on them at the beginning. We don't want to alienate our readers, after all! By putting the conclusion at the end of the passage, we can gain our readers' trust throughout the argument and hopefully they'll be better able to accept our conclusion once they reach it.

On the other hand, if we're arguing for a conclusion that we think most people we like, we should lead with it. This will get our audience on the bandwagon right away, and this will make them charitably disposed to our argument. If our conclusion is neither offensive nor popular, we can put it at the front or at the back. Normally I choose the front, because it's easier for people to follow an argument if they know where they're supposed to be going. (Naturally, I'm referring to my *other* writing here. Because I want you to be able to identify the ultimate conclusion no matter where it is, I try to put the ultimate conclusion at various places when composing arguments for you to analyze.)

Under no circumstances, at this point, should we think about putting the ultimate conclusion in the middle of the argument. In Chapter 4, we'll see when this is okay, but for now we'll put our conclusions at the beginning of the argument or at the end (notwithstanding unimportant sentences, which we might include at the beginning or end of the passage).

Stop and Think

Where should I put the conclusion of my argument?

- U 1. We shouldn't aspire to be as independent and autonomous as possible.
- S 2. Some virtues require a level of interdependence.
- P 3. Gratitude and forgiveness require interdependence.

3
A↓
2
B↓
1

I don't think that my conclusion is controversial *and* I don't think that most people are predisposed to it so I think that I'm free to put my conclusion at the beginning or end. True to my habit of letting my readers know where they're going before I take them there, I think that I'll put the conclusion at the front of the argument when I write it up.

Responsibly Exploit the Rhetorical Potential of Language

Second, now that we know about statement questions, statement commands, masking statements, and unimportant statements, we can fully exploit the entire range of

rhetorical devices when we write up our arguments. We can state ideas as questions and commands. We can say one thing and fully intend to convey another. We can set the stage for our argument by letting people know why it's important to defend our conclusion. Unfortunately, we can *also* appeal to emotion with all the manipulative force of a bad country-western song. Addressing the emotional aspect of an issue is laudable, but we need to beware overdoing it and we should *never* substitute emotion for argument. If we remember that our readers are intelligent people, however, and if we consistently treat them with respect, that shouldn't be a problem.

Now I'm ready to write up my argument.

- U 1. We shouldn't aspire to be as independent and autonomous as possible.
- S 2. Some virtues require a level of interdependence.
- P 3. Gratitude and forgiveness require interdependence.

3
A↓
2
B↓
1

I've already decided to lead with my ultimate conclusion, but before I start the argument proper, I'll begin with some unimportant statements to explain why I'm bothering to consider this issue at all. I'll also couch one of my ideas as a statement question. Here I go.

"A popular conception of human nature maintains that an ideal person is as independent as possible. This 'autonomy-model' of perfection is especially popular in the United States, where it supports the norms of rugged-individualism and self-reliance that allegedly made this country great. In fact, however, we shouldn't aspire to be as independent and autonomous as possible, because some virtues require a level of interdependence. Don't gratitude and forgiveness require interdependence, after all?"

Summary

We've now learned quite a bit more about argument construction. In particular, we've learned more about how to

Construct the chain of reasoning, specifically

- If one of our premises seems true but unacceptable to our audience, we can transform it into a subconclusion by giving reason to believe it.

Communicate the argument, specifically

- We should put our ultimate conclusion at the beginning of our argument, unless it's controversial, in which case we should put it at the end.
- We can express some important ideas as statement questions, statement commands, and masking statements.
- We can include unimportant statements to “ease” the audience into our argument.

Congratulations! You've finished another chapter and learned about subconclusions! In the next chapter, we'll see arguments with more than one premise, but before we proceed, take a moment to review the handbook for this chapter and then to practice the skills and concepts covered here by working through some of the exercises, questions, and activities.