

Jill LeBlanc

M C M A S T E R U N I V E R S I T Y

Thinking Clearly

◆ A GUIDE TO ◆
CRITICAL REASONING



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Standardizing Arguments

WHEN WE **standardize** an argument, we identify its component propositions and consider how they are related to one another. It is not always easy to see the relations among propositions. Some arguments contain extra words or sentences (for example, “on the other hand” or “we’d certainly all agree that . . .”) that don’t directly contribute to the argument. Getting rid of these extra elements can help us see more clearly the structure of the argument.

■ STANDARDIZATION

In Chapter 1, we asked two questions to help us recognize arguments. Is an attempt being made to convince us of something? That’s the conclusion. Are we given reasons to believe it? Those are the premises. In standardizing most arguments, it’s easiest to identify the conclusion first. Often the conclusion appears in the first or the last sentence

Strategies and Conventions

Identifying premises and conclusions

CONCLUSION: What is the passage trying to convince you of?
What does it want you to believe?

PREMISES: What reasons are given to believe the conclusion?

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of a passage. This is not a way of deciding that something *is* a conclusion, but it does give you a place to start. You should also look for indicator words. Then ask yourself whether a particular proposition seems to be supported by other propositions in the passage.

We'll learn two methods of representing standardizations. Use the one that works best for you (or the one that your instructor prefers). Let's see how these methods work on example [1].

Strategies and Conventions

Conclusions

In your own writing, always keep your conclusion in mind, and make sure it's clear to your reader. It's not a bad idea to put the conclusion first. Then your reader knows immediately what you're trying to prove and can follow the rest of your argument more easily.

- [1] Single-sex high schools work better than coeducational high schools because adolescents do better when they aren't distracted by the presence of the opposite sex. Also, the developmental needs of adolescent boys and girls are divergent.

Example [1] is an argument. What does it try to convince us of? That single-sex high schools work better than coeducational high schools. This is the conclusion. The other propositions in the passage offer reasons to believe the conclusion.

In the first method of standardization, start by writing the conclusion at the bottom of the page.

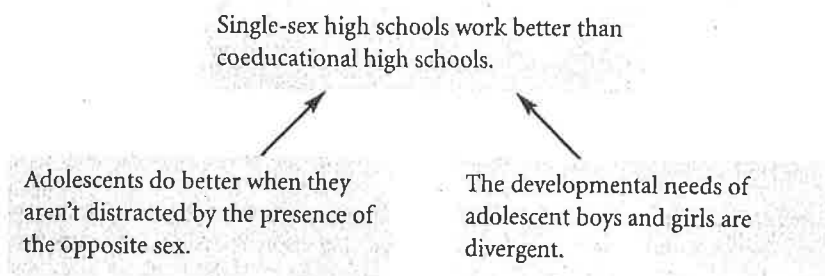
- Single-sex high schools work better than coeducational high schools.

The other propositions in example [1] are premises supporting the conclusion; give each of those premises its own line above the conclusion:

1. Adolescents do better when they aren't distracted by the presence of the opposite sex.
2. The developmental needs of adolescent boys and girls are divergent.

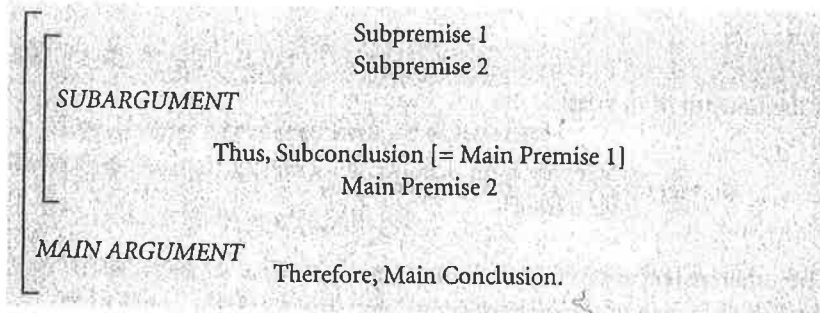
Single-sex high schools work better than coeducational high schools.

The other method is a diagram and moves in the opposite direction. Here too we start with the conclusion, but we write it at the top of the page. The premises are written under it with arrows connecting the premises to the conclusion they support.



Subarguments

Arguments are not often as easy to standardize as example [1]. Sometimes you will find arguments within arguments. These **subarguments** are used to support one of the premises of the larger argument. The conclusion of a subargument functions as a premise in the larger argument.



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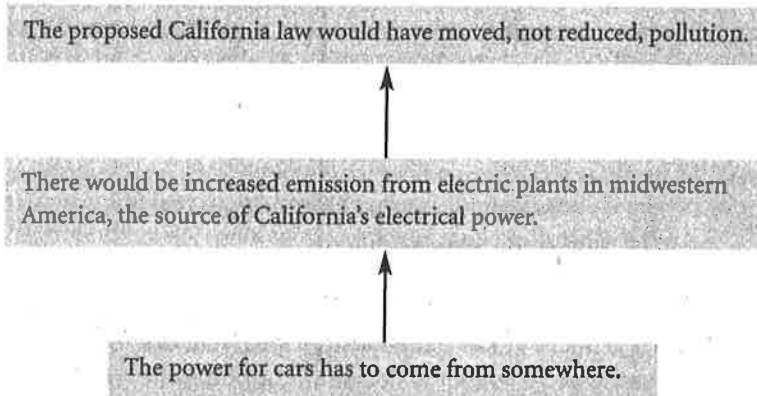
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Here's another example.

- [3] The proposed California law requiring the phasing-in of zero-emission vehicles would have had the effect, not of reducing pollution, but of moving it. The power for cars has to come from somewhere, so there would be increased emission from electric plants in midwestern America, the source of California's electrical power.

The proposed California law would have moved, not reduced, pollution.



Remember that the arrows in the pictorial standardization represent a logical relationship between the propositions. You can test your standardization by reading upwards and using the word *therefore* at each arrow. This will reveal whether you've put the propositions in the right order. When learning how to standardize, some people recognize that *so* indicates a logical relationship, but get the relationship backwards. It is always a good idea to ask yourself whether your standardization

REVIEW BOX 2.1

Subarguments

If subargument *A* is embedded in argument *B*, the conclusion of subargument *A* is a premise in argument *B*.

spending”—why would we have to cut spending just because we can’t raise taxes? Only the two premises together lead to the conclusion that we have to cut spending. Together the premises say, essentially, that there are only two choices and that one of them wouldn’t work; thus we’re thrown back on the second choice. The two premises are **linked**—they work together to support the conclusion; one without the other is insufficient.

Compare this with example [6], which gives two reasons to believe the conclusion “We can’t raise taxes.” For one thing, people feel overtaxed already. For another, less disposable income for individuals (the result of higher taxes) would hurt the economy. Either one of these reasons could be used by itself to support the conclusion. They **converge** to support the conclusion; they don’t interact in the way that linked premises do.

Linked premises are *interdependent*: taking away one premise would destroy the argument. Convergent premises are *independent*: each works by itself, though subtracting a premise would, of course, weaken the argument by providing one fewer reason to believe the conclusion. In pictorial standardizations, linked premises are joined by a line, with an arrow pointing from that line to the conclusion. Convergent premises each have an arrow that points to the conclusion.

LEMUR Exercises 2.1 and 2.2

EXERCISE 2.1

Standardize each of the following arguments. In cases where more than one premise directly supports a main conclusion or subconclusion, indicate whether the premises are linked or convergent.

Example

Without proper medical evidence we may never know whether John Kennedy was killed by a single gunman. But the evidence is far from satisfactory. There is controversy about the location and size of the wounds in Kennedy’s head. Some experts believe that the X-rays of the head wounds have been faked; some also charge that the X-rays are inconsistent with one another. We may never know whether John Kennedy was killed by a single gunman.

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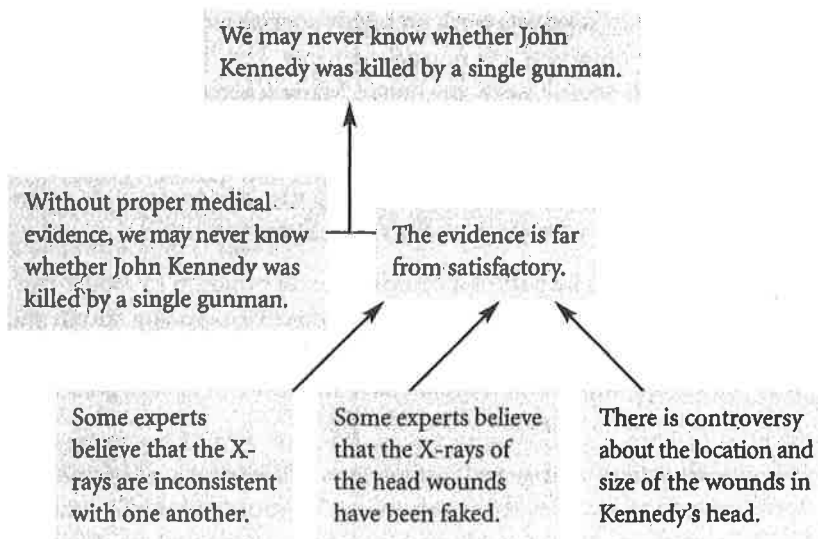
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STANDARDIZATION:

1. Without proper medical evidence we may never know whether John Kennedy was killed by a single gunman.
 - 2.1. There is controversy about the location and size of the wounds in Kennedy's head.
 - 2.2. Some experts believe that X-rays of the head wounds have been faked.
 - 2.3. Some experts charge that the X-rays are inconsistent with one another.
 2. The evidence is far from satisfactory.
- Therefore, we may never know whether John Kennedy was killed by a single gunman.



The two premises supporting the main conclusion (1 and 2 in the numbered standardization) are linked: we need to know both that the evidence is unsatisfactory *and* that the evidence may be essential to conclude that we may never know whether Kennedy was killed by one gunman. The three subpremises (numbered 2.1, 2.2, and 2.3) supporting the subconclu-