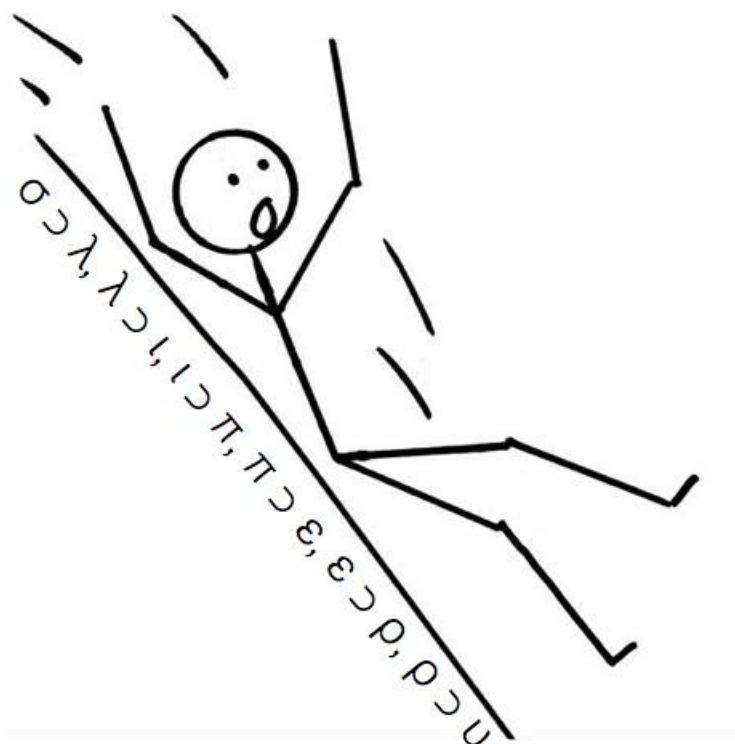


Introduction to Logic and Critical Thinking

Version 1.4



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1.7 Arguments with missing premises

Quite often, an argument will not explicitly state a premise that we can see is needed in order for the argument to be valid. In such a case, we can supply the premise(s) needed in order so make the argument valid. Making missing premises explicit is a central part of reconstructing arguments in standard form. We have already dealt in part with this in the section on paraphrasing, but now that we have introduced the concept of validity, we have a useful tool for knowing when to supply missing premises in our reconstruction of an argument. In some cases, the missing premise will be fairly obvious, as in the following:

Gary is a convicted sex-offender, so Gary is not allowed to work with children.

The premise and conclusion of this argument are straightforward:

1. Gary is a convicted sex-offender
2. Therefore, Gary is not allowed to work with children (from 1)

However, as stated, the argument is invalid. (Before reading on, see if you can provide a counterexample for this argument. That is, come up with an imaginary scenario in which the premise is true and yet the conclusion is false.) Here is just one counterexample (there could be many): Gary is a convicted sex-offender but the country in which he lives does not restrict convicted sex-offenders from working with children. I don't know whether there are any such countries, although I suspect there are (and it doesn't matter for the purpose of validity whether there are or aren't). In any case, it seems clear that this argument is relying upon a premise that isn't explicitly stated. We can and should state that premise explicitly in our reconstruction of the standard form argument. But what is the argument's missing premise? The obvious one is that no sex-offenders are allowed to work with children, but we could also use a more carefully statement like this one:

Where Gary lives, no convicted sex-offenders are allowed to work with children.

It should be obvious why this is a more "careful" statement. It is more careful because it is not so universal in scope, which means that it is easier for the statement to be made true. By relativizing the statement that sex-offenders are not allowed to work with children to the *place* where Gary lives, we leave open the possibility that other places in the world don't have this same restriction. So even if there are other places in the world where convicted sex-offenders are allowed to work with children, our statements could still be true since in *this* place (the place where Gary lives) they aren't. (For more on strong and weak statements, see section 1.10). So here is the argument in standard form:

1. Gary is a convicted sex-offender.
2. Where Gary lives, no convicted sex-offenders are allowed to work with children.
3. Therefore, Gary is not allowed to work with children. (from 1-2)

This argument is now valid: there is no way for the conclusion to be false, assuming the truth of the premises. This was a fairly simple example where the missing premise needed to make the argument valid was relatively easy to see. As we can see from this example, a **missing premise** is a premise that the argument needs in order to be as strong as possible. Typically, this means supplying the statement(s) that are needed to make the argument valid. But in addition to making the argument valid, we want to make the argument plausible. This is called “the principle of charity.” The **principle of charity** states that when reconstructing an argument, you should try to make that argument (whether inductive or deductive) as strong as possible. When it comes to supplying missing premises, this means supplying the most plausible premises needed in order to make the argument either valid (for deductive arguments) or inductively strong (for inductive arguments).

Exercise 6: Supply the missing premise or premises needed in order to make the following arguments valid. Try to make the premises as plausible as possible while making the argument valid (which is to apply the principle of charity).

1. Ed rides horses. Therefore, Ed is a cowboy.
2. Tom was driving over the speed limit. Therefore, Tom was doing something wrong.
3. If it is raining then the ground is wet. Therefore, the ground must be wet.
4. All elves drink Guinness, which is why Olaf drinks Guinness.
5. Mark didn't invite me to homecoming. Instead, he invited his friend Alexia. So he must like Alexia more than me.
6. The watch must be broken because every time I have looked at it, the hands have been in the same place.

7. Olaf drank too much Guinness and fell out of his second story apartment window. Therefore, drinking too much Guinness caused Olaf to injure himself.
8. Mark jumped into the air. Therefore, Mark landed back on the ground.
9. In 2009 in the United States, the net worth of the median white household was \$113,149 a year, whereas the net worth of the median black household was \$5,677. Therefore, as of 2009, the United States was still a racist nation.
10. The temperature of the water is 212 degrees Fahrenheit. Therefore, the water is boiling.
11. Capital punishment sometimes takes innocent lives, such as the lives of individuals who were later found to be not guilty. Therefore, we should not allow capital punishment.
12. Allowing immigrants to migrate to the U.S. will take working class jobs away from working class folks. Therefore, we should not allow immigrants to migrate to the U.S.
13. Prostitution is a fair economic exchange between two consenting adults. Therefore, prostitution should be allowed.
14. Colleges are more interested in making money off of their football athletes than in educating them. Therefore, college football ought to be banned.
15. Edward received an F in college Algebra. Therefore, Edward should have studied more.