

How can a deductive argument go wrong?

WEEK 1 . DEEPER DIVE

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it can fail to be *valid*
or it can fail to be *sound*

RECALL:

DEDUCTIVE ARGUMENTS

- a type of argument
- *logically impossible* for the conclusion to be false when the premises are true
- the truth of the premises *guarentees* the truth of the conclusion

AN ARGUMENT IS VALID

if and only if the conclusion necessarily
follows from the premises

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Ask yourself: if the premises are all true,
does the conclusion necessarily follow?

AN ARGUMENT IS SOUND

if and only if it is both valid *and* all the
premises are true.

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You've either completed symbolic logic or you're illogical.
You haven't completed symbolic logic.
 \therefore You're illogical.

Is this argument valid? Is it sound?

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The conclusion does follow from the premises so the argument is valid. But the first premise is clearly false!

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I'm taking LPS 30 this Spring.
I took LPS 29 last Fall.
 \therefore I will take LPS 31 next year.

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Can I make it valid?

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