

This is an example in which we use propositional logic to model real world arguments.

Consider the following argument, drawn from an article by Julian Baggini. The onnagata are male actors portraying female characters in kabuki theatre.

Relevant articles:

<http://www.butterfliesandwheels.org/2004/tu-quoque/>

<https://www.theguardian.com/stage/2004/aug/21/theatre>

Let's define the following propositions:

w: women are too close to femininity to portray women.

m: men are too close to masculinity to play men.

o: the onnagata are correct.

Premise 1: If women are too close to femininity to portray women, then men must be too close to masculinity to play men, and vice versa.

Translation: $(w \leftrightarrow m)$

Note the "vice versa" in the sentence, which suggests a biconditional instead of a conditional.

Premise 2: And yet, if the onnagata are correct, women are too close to femininity to portray women and yet men are not too close to masculinity to play men.

Translation: $(o \rightarrow (w \wedge (\neg m)))$

Conclusion: Therefore, the onnagata are incorrect, and women are not too close to femininity to portray women.

Translation: $((\neg o) \wedge (\neg w))$

The argument is:

$(w \leftrightarrow m)$

$(o \rightarrow (w \wedge (\neg m)))$

$((\neg o) \wedge (\neg w))$

Is this argument valid? We will be able to answer this when we learn about semantic entailment and natural deduction.