

## 305 Lecture 04 - Argument Forms

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## Plan for This Lecture

- Some revision of the notion of validity
- A discussion of which aspects of arguments we formalise, and why we do this.

## Associated Reading

This doesn't correspond to any section in the book, but it helps to understand the transition from chapter 1 to chapter 3.

# Definition

An argument is valid when

- The truth of the premises guarantees the truth of the conclusion.
- Equivalently, when it is impossible for the premises to be true and the conclusion not true.

# Formal Validity

An argument is formally valid if

- It is valid; and
- Any argument of the same form is valid.

In those cases, we infer that it is valid **because of** its form.

## Three Big Questions About Form

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2. Which words have the same meaning and should be replaced by the same symbol, and which should be treated differently?
3. How do we break the sentence into its constituent parts?



I'm going to have a fairly pluralist, pragmatist view on this question.

- This is not to say that pluralism or pragmatism is right - it's just that it's what I'll adopt. (It is to say that I think it's a reasonable approach.)
- For some purposes the 'formal words' are very few, like 'and', 'or', 'not' etc.
- For other purposes the set is more expansive.

There are problems in both directions here.

- Sometimes we want to treat words with different spelling as representing the same meaning - e.g., 'kangaroo' and 'kangaroos'.
- And sometimes we want to treat words with the same spelling as expressing different meanings.

## Relating the First Two Questions

Some kinds of ambiguity are ‘resolved’ by treating the word as part of the formal system.

- That’s what the book does with “Nothing is better than world peace”.
- And some less pluralist approaches to the ‘formal words’ question are moved by the thought that some words really need this kind of treatment.

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2. Using parentheses.
3. Replacing 'formal words' with symbols.

## For Next Time

We'll look at how propositional logic carries out these three tasks.